

# The Mining Journal

## RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[The MINING JOURNAL is Registered at the General Post Office as a Newspaper, and for Transmission Abroad.]

No. 2009.—VOL. XLIV.

LONDON, SATURDAY, FEBRUARY 21, 1874.

WITH SUPPLEMENT. PRICE FIVEPENCE. PER ANNUM, BY POST, £1 4s.

**MR. JAMES CROFTS, STOCK AND SHARE BROKER,**  
No. 1, FINCH LANE, CORNHILL, LONDON, E.C.  
(ESTABLISHED 1842).

BUSINESS transacted in every description of BRITISH and FOREIGN Stocks and Shares, and in all COLLIERIES and IRON SHARES.  
SPECIAL BUSINESS in shares not having a general market value.  
Loans negotiated upon marketable Mining Shares and other approved Stocks.  
The principal mining papers filed every week. A Price List issued every evening at five o'clock.

UNITED BITUMINOUS are recommended for purchase. The Fire-brick Department is now in full working order, and very remunerative sales are being made. The Weig Colliery is opening out well. Higher dividends may be looked for. For sale, 50 shares.  
BUSINESS also in Cardiff and Swansea, Cleve Hill, Littledean Woodside, Newport Abercarn, New Sharlston, Welsh Freehold, and other Colliery Shares.  
SPECIAL BUSINESS in Emma, Flagstaff, Last Chance, Malabar, Malpas, Old Treburgett, Tecoma, Van Consoles.

**MR. W. H. BUMPUS, STOCK AND SHARE DEALER,**  
44, THREADNEEDLE STREET, LONDON, E.C., has FOR SALE the following SHARES, free of commission:—

50 Almada, 19s. 6d.	50 Great Laxey, £12½.	40 South Prince Patrick, 25s. 6d.
75 Aberdunant, 6s. 6d.	30 Hingston Down, 30s. 6d.	100 South Aurora, 17s.
150 Bampfylde, 25s.	50 Lovell (Tin), £2½.	20 Sweetland, £4½.
35 Birdseye Creek, £3¼.	40 Ladywell, £2½.	25 South Roskear, 25s.
70 Boscawell, 10s.	25 Marke Valley, 18s. 9d.	50 Sierra Buttes, £2 13s. 9d.
50 Bog, 14s. 3d.	50 Last Chance, £1¼.	50 So. Rom. Grav., 19s.
3 Carn Brea, £4½.	75 Malpas, 21s.	100 Tecoma, 19s. 6d.
100 Cleve Hill Colliery, 15s. 6d.	100 Malabar, 15s.	40 Tylwyd, 25s. 6d.
20 Colorado Terr., £3½.	50 New Quebrada, £4½.	15 Tankerville, £9.
25 Cedar Creek, £2½.	100 New Pacific, 20s.	5 Utah, 25s. 6d.
15 Cape Copper, £28½.	30 New Dolcoath, 20s. 6d.	5 Van, £31.
100 Chontales, 17s. 9d.	50 Old Treburgett, 19s.	40 Van Consoles, £3½.
25 Drake Walls, £2½.	50 Perkins Beach, 7s.	50 W. Godolphin, 37s. 6d.
2 Dolcoath, £4½.	25 Port Phillip, 14s.	50 Wh. Mary Hutchings, £3½.
50 Eberhardt, £3½.	100 Plympton, 5s. 9d.	40 W. Esqair Lie, £3¼.
40 Emma (Silver), £3 8s. 9d.	70 Penstruthal, 17s. 9d.	50 Wheat Agar, 23s.
50 East Caradon, 18s. 9d.	30 Pennerley, £2.	5 W. Chiverton, £5½.
10 East Lovell, £10½.	100 Rica (Gold), 11s. 3d.	10 Wheat Grenville, £4½.
50 East Van, 30s.	50 Rookhope, 20s.	50 W. Tankerville, £2½.
40 Flagstaff, £3½.	40 Richmond, £6.	20 Wheat Crebor, £3½.
25 Great West Van, 6d.	10 Roman Grav., £16½.	
Also, 100 United Bituminous Colliery shares (fully paid), at 21s.	50 Scottish Australian, £2.	

London Office of Reference for Drake Walls and South Roskear Mines.  
W. H. B. transacts business in every description of stocks and shares at the best market prices, and free of commission.  
Bankers: National Provincial Bank of England, E.C.

**MR. E. J. BARTLETT, STOCK AND SHARE DEALER,**  
No. 30, GREAT ST. HELEN'S, LONDON, E.C., transacts business at net prices in every description of security.

Post free, Sixpence.  
**INVESTMENTS FOR 1874—A SAFE SELECTION.**  
Published by E. J. BARTLETT.  
30, Great St. Helen's, London, E.C.

**MR. JOHN RISLEY (SWORN), STOCK AND SHARE BROKER,**  
77, CORNHILL, LONDON, E.C.  
Specially recommends the purchase of shares in WHEAL CREBOR, TRELEIGH WOOD, OLD TREBURGETT (Preference Shares), and WHEAL GRENVILLE MINES.  
The latest reports of the above mines forwarded on application.  
Brokerage on Buying or Selling shares of £4 and upwards, 1¼ per cent., and 1s. per share on each under £4.

**FERDINAND R. KIRK, STOCK BROKER,**  
5, BIRCHIN LANE, E.C.

UNITED BITUMINOUS should be bought since the current earnings from coal, coke, and fire-clay are largely increasing; and the Weig Colliery will soon swell the returns.  
FOR SALE—200 United Bituminous, 25 Welsh Freehold, 30 Cardiff and Swansea, 20 Bampfylde, 5 Brynn, and 15 Grogwinion.  
The following colliery shares may be bought with advantage:—Cardiff and Swansea, West Mostyn, Welsh Freehold, and Newport Abercarn. Further particulars if required.  
SPECIAL BUSINESS in Flagstaff, Last Chance, Cedar Creek, Tecoma, Tylwyd, Emma, and Richmond.  
All Colliery and Iron Shares dealt in, whether quoted or not.  
Bankers: London and Westminster, and City Bank.

**MR. W. L. I. A. M. W. A. R. D**  
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CROSBY HOUSE, 95, BISHOPSGATE STREET WITHIN, E.C.,  
DEALS IN ALL KINDS OF STOCKS AND SHARES, for cash or the account.

**MR. HENRY MANSELL, STOCK AND SHARE DEALER,**  
14, GREAT WINCHESTER STREET, LONDON, E.C.  
H. M. recommends the purchase of COLORADO TERRIBLE shares.

**MR. THOMAS THOMPSON, JUN., 1, PALMERSTON BUILDINGS, BISHOPSGATE STREET, LONDON, E.C.**  
Some valuable hints as to the purchase of mining shares will be found in Mr. Thompson's "Investment Circular" for February now ready, post free, price 6d.

**MR. W. TREGELLAS, 122, BISHOPSGATE STREET WITHIN, E.C.,**  
Deals in all descriptions of Stocks and Shares at close market prices.

**MESSRS. ENDEAN AND CO., STOCK AND SHARE DEALERS,**  
85, GRACECHURCH STREET, LONDON, E.C.  
Government and every negotiable Stocks dealt in for cash or account. Orders and telegrams punctually attended to.  
We advise immediate application and purchase of the BAMPFYLDE and LLANRWYR shares. A rise in price is inevitable.

**MESSRS. WM. MARLBOROUGH AND CO.,**  
59, BISHOPSGATE STREET WITHIN, LONDON, E.C. (Established 18 years), have FOR SALE the following SHARES at prices annexed:—

5 Anglo-American Telegraph, £79.	25 Great Vor, 20s. 9d.	25 Rookhope, 19s. 9d.
75 All-y-Crib, 11s. 6d.	10 Great Laxey, £12½.	40 S. Carn Brea, £2 13s. 9d.
35 Boscawell Downs, 10s.	15 Herodfoot, £5.	25 So. Condurow, £4 7 6
30 Birdseye Creek, £3¼.	10 Hingston, 32s.	50 South Tolcarne, 12s.
40 Bog, 14s. 3d.	25 Ladywell, £2 16s. 3d.	20 So. Rom. Gravels, 19s.
35 Colorado, £3 18s. 9d.	70 Last Chance, 23s.	25 Sweetland Creek, £5.
5 Cape Copper, £28½.	50 Malabar, 15s.	50 South Aurora, 15s. 6d.
3 Carn Brea, £4½.	75 Malpas, 20s. 6d.	5 Tincroft, £34.
70 Cedar Creek, £2½.	10 Medlyn Moor, 12s. 6d.	50 Tecoma, 18s. 9d.
10 Cook's Kitchen, £3.	10 New Sharlston, 20s. 9d.	20 Utd. Bituminous Colliery, 20s.
80 Cleve Hill Colliery, 16s.	35 New Dolcoath, 20s. 6d.	5 Van Consoles, 19s.
5 Dolcoath, £4½.	75 New Quebrada, £4 6 3	15 Wh. Grenville, £4 13 9
50 Emma, £3½.	50 New Rosario, 17s. 6d.	25 Wh. Godolphin, £3½
10 East Basset, 25s.	100 New Hendra, 20s. 9d.	25 Wheat Crebor, 15s.
50 Eastern Exten., £7 18 9	30 Old Treburgett, 20s. 9d.	50 Wh. Kitty, £8 15s.
40 East Van, 31s.	40 Old Batholes, 10s.	50 Wheat Peavor, 10s.
20 East Lovell, £10 6s. 3d.	40 Prince of Wales, 5s. 9d.	70 Wedgwood Coal and Iron, £7.
25 Eberhardt, £4.	75 Penstruthal, 17s. 9d.	5 W. Cumberland, 3 4s.
45 East Pool, 5s.	15 Roman Gravels, £16½.	25 W. Tankerville, £3 9d.
35 Flagstaff, £3 3s. 9d.	40 Richmond, £5 18s. 9d.	10 W. Chiverton, £5 8s. 9
30 Great West Van, 6d.	30 Rosewall Hill, 16s. 3d.	

**MR. GEORGE BUDGE, STOCK AND SHARE DEALER,**  
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 24 years), has SPECIAL BUSINESS in the following:—  
100 Old Treburgett (ordinary), 250 All-y-Crib, 30 Devon Great Consols, 20 Minera, 75 Portescue, 30 West Gwynn, 50 Bampfylde, 200 Gwydyr Park, 40 Prince of Wales, 100 Crenner and Wheel Abraham (fully paid), 30 East Van, 15 East Chiverton, 40 Wheel Coates, 100 Wheel Mary, 50 South Tolcarne, 100 Tylwyd, 20 Wheel Crebor, 100 Englefield Colliery (fully paid), 80 Perkins Beach, 35 West Gwynn, 20 New Rosario, 200 United Bituminous, 50 Blue Hills, 35 West Esqair-Lie, 20 Ladywell, 25 Dolcoath, 75 United Bituminous, 100 Steam Stoker Company (fully paid), Run, 100 New Rosario, 200 Exchequer, 125 New Pacific, 30 Emma, 60 Last Chance, 50 Mammoth Copperopolis, 50 Birdseye Creek, 50 Cedar Creek, 20 Colorado Terr., 30 South Aurora, 175 Frontino and Bolivia, 50 New Quebrada, 65 Newfound-land, 30 Richmond, 250 Fort Phillip.

**INVESTMENT OR SPECULATION.—A SELECTED LIST**  
OF RAILWAYS, BANKS, MINES, COLLIERIES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to bona fide investors on application. In addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.

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Twenty-nine years' experience.  
Bankers: The Alliance Bank, and the Union Bank of London.  
References given and required (when necessary) in all the principal towns of the United Kingdom.

**MR. T. E. W. THOMAS, SWORN SHARE BROKER,**  
3, GREAT WINCHESTER STREET BUILDINGS, E.C.  
Established 1857.  
Mr. THOMAS is in receipt of regular and reliable information from the seat of mining operations in Utah, which is at the service of clients.

**WHAT TO SELECT—WHAT TO AVOID.**  
BY FRED. WM. MANSELL,  
(SWORN BROKER).  
PINNERS HALL, OLD BROAD STREET, LONDON, E.C.  
Established 1857. Bankers: London Joint-Stock Bank.

**McKENNA & CO., STOCK AND SHARE BROKERS,**  
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**BARTLETT AND CHAPMAN, FINESBURY SQUARE BUILDINGS, LONDON, E.C., STOCK AND SHARE DEALERS.**  
Before investing, read our publications:—  
"Handy Book for Investors" (third edition), price 10s. 6d.  
"British Mines and Mining," price 2s. 6d.  
"Investors' Directory," price 1s. 6d.  
The "Investment and Financial Record," will be sent FREE on application.  
Bankers: London and Westminster.

**MAUDSLAY AND CO., STOCK AND SHARE BROKERS,**  
3, CRAVEN-STREET, STRAND, LONDON, AND ST. AUSTELL, CORNWALL, transact business in all Stocks, Shares, and Miscellaneous Securities, at close market prices.  
MAUDSLAY and Co., having a branch establishment in the heart of Cornwall, can furnish the earliest information of discoveries in mines, enabling their clients to anticipate the rise in price of shares.  
MAUDSLAY and Co.'s Monthly Reflex upon Mines and Mining and Financial and Miscellaneous Undertakings should be consulted by all Investors. Forwarded free for two stamps, on application to 3, Craven-street, Strand, London.

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Bankers: National Provincial Bank of England.  
W. D. and Co. have FOR SALE the following at net prices:—  
10 Cook's Kitchen, £5 5s. 50 Condurow, £45s. 25 Uni. Bituminous, £1 2  
10 Lovell (Tin), 50 So. Roman Grav., 18s. 5 W. Kitty, £8 12s. 6d.  
50 New Dolcoath, 19s. 50 South Tolcarne, 10s. 3 Wheal Seton, £10.  
20 Old Treburgett, 18s. 5 Tankerville, £8 10s. 20 Wheal Uney, £2 15s.  
20 Rookhope, 18s. 100 Tylwyd, £1 1s. 9d.

**MR. E. CHARTERS, 8, CRAIG'S COURT, CHANCERY CROSS, LONDON,** has the FOLLOWING SHARES, free of commission:—  
50 Almada, 19s. 6d. 60 Gawton, 11s. 6d. 70 Plympton, 6s. 6d.  
70 Australian, £2. 10 Great Laxey, £11½. 60 Parys Mount, 7s. 6d.  
10 Bellavista, £2. 10 Grogwinion, £2½. 70 Prince of Wales, 7s. 6d.  
80 Bampfylde, £2½. 60 Gt. West Van, 30s. 10 Roman Gravels, £15.  
50 Boscawell, 9s. 3d. 70 Gold Run, 4s. 6d. 30 Richmond, £5½.  
50 Chicago, offer wanted. 50 Hingstonfoot, £4. 25 Rookhope, 19s.  
10 Cape Copper, £28. 20 Hingston Down, £1½. 50 So. Carn Brea, £27½.  
2 Carn Brea, £40. 80 Ladywell, £1½. 40 So. Rom Grav., 15s. 6d.  
70 Cleve Hill Col., 14s. 9d. 30 Last Chance, £1½. 50 St. Dennis Consols, £2  
60 Cwm Elan, 3s. 6d. 70 Malpas, £1. 20 Sweetland, £4½.  
5 Dolcoath, £4½. 60 New Dolcoath, 19s. 6d. 10 Tincroft, £30½.  
20 Don Pedro, 12s. 6d. 70 New Pacific, 5s. 9d. 10 Van Consoles, £3.  
10 Emma, £3½. 30 Pennerley, £1½. 25 Wheat Crebor, £3.  
25 East Van, £1½. 40 Old Batholes, 10s. 6d. 80 West Maria, 3s. 6d.  
10 Eberhardt, £3½. 20 Old Treburgett, 18s. 6d. 10 Wh. Grenville, £5.  
30 Flagstaff, £2½. 40 Oola Hills, £1. 20 Wheal Mary.

**MESSRS. A. ENDEAN, FISHER AND CO., STOCK AND SHARE DEALERS,**  
32, NEW BROAD STREET, E.C.  
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STOCK AND SHARE BROKERS.  
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Consols, Foreign Stocks, Railways, Mining Shares, and every Security quoted in the London Stock Exchange or Mining Market Bought and Sold.  
Speculative accounts opened for the fortnightly settlement.  
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59, BISHOPSGATE WITHIN, LONDON, E.C. PUBLISH A DAILY and WEEKLY LIST of Prices of Funds, Government Securities, Banks, Railways (home and foreign), Mines, Docks, Gas, Telegraph, Waterworks, and miscellaneous companies shares.  
All orders punctually attended to, for cash or account.  
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**MR. JAMES STOCKER, STOCK AND SHARE DEALER,**  
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20 Almada, 18s. 6d. 40 Gawton, 11s. 9d. 60 S. Roman Grav., 18s. 9  
35 All-y-Crib, 10s. 6d. 20 Great West Van, 33s. 9 25 So. Condurow, £4½.  
100 Bampfylde, £2½. 20 Great Vor, 25s. 50 South Aurora, 15s. 6d.  
100 Bedford United, 18s. 100 Gold Run, 5s. 35 So. Carn Brea, 51s.  
45 Birdseye, £3 5s. 9d. 35 Grogwinion, £2½. 100 Sweetland, £5.  
10 Bellavista, offer wntd. 25 Great Laxey, 100 Thornhill Reef, 35s. 9d.  
45 Boscawell, 9s. 3d. 45 Ladywell, £2½. 100 Tecoma.  
50 Bog, 16s. 25 Hingston, 28s. 9d. 100 Tylwyd, 25s.  
150 Boscawell Downs, 10s. 45 Last Chance, 23s. 25 Tankerville, £9½.  
45 Blue Tent, £5. 10 Lovell (Tin), £2½. 4 Tincroft, £33½.  
2 Carn Brea, £41½. 65 Malabar, 15s. 6d. 50 Uni. Bituminous, 23s. 6  
90 Chicago (£10 p.d.), £7. 75 Malpas, 20s. 6d. 70 Utah, 29s.  
50 Chontales, 17s. 80 Marke Valley, 17s. 6d. 70 Van Consoles, £3 6s. 3d.  
80 Cwm Elan, 3s. 85 New Pacific, 7s. 9d. 30 W. Tankerville, 43s. 9d.  
10 Cook's Kitchen, £3. 100 New Dolcoath, 19s. 60 West Caradon, 18s. 9d.  
70 Cedar Creek, 41s. 9d. 45 New Quebrada, 10 West Chiverton, £3½.  
Clee Hill Col., 15s. 6d. 85 New Rosario, 17s. 6d. 70 West Godolphin, 37s. 6d.  
70 Don Pedro, 12s. 6d. 60 Old Batholes, 10s. 6d. 80 West Maria, 3s. 6d.  
3 Dolcoath, £4½. 100 Old Treburgett, 22s. 25 W. Esqair Lie, £3.  
35 East Caradon, 18s. 10 ditto preference, 19s. 10 West Basset.  
40 East Grenville, 10s. 6d. 70 Perkins Beach, 12s. 6d. 2 West Seton.  
10 East Lovell, £10½. 40 Pennerley, 39s. 35 Wheat Crebor, £3½.  
15 East Pool. 100 Penstruthal, 17s. 50 Wh. Grenville.  
15 East Van, 30s. 75 Port Phillip. 30 W. Wh. Gorland, £1½.  
35 Eberhardt, £4 1s. 3d. 100 Prince of Wales, 5s. 9d. 10 Wheal Kitty, £9½.  
30 Emma, £3½. 80 Ricin, 11s. 6d. 5 Wh. Margaret, £2½.  
100 Exchequer, 14s. 6d. 45 Rosewall Hill, 15s. 6d. 80 Wheal Uney, 45s.  
70 Frontino, 6s. 3d. 30 Rookhope, 19s. 70 Yorke Peninsula, 6s.  
58 Flagstaff, £3 3s. 25 Richmond, £5.  
100 Fortescue, 5s. Bankers: London and Westminster

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**MR. CHARLES THOMAS,**  
MINING AGENT  
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**GEORGE LAVINGTON, STOCK AND SHARE BROKER,**  
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Flagstaff. Gold Run. Buller.  
Kitty (St. Agnes). Pacific. Rica.  
Cedar Creek. Malabar. West Esqair Lie.  
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Railways, Bank Shares, Mines, should consult  
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During the panic prices having fallen very low; good mines are now worth attention of capitalists.



# THE KEHELLAND CONSOLS COPPER MINING COMPANY (LIMITED).

Capital £24,000, in 12,000 Shares of £2 each.

First issue of 3000 Shares.

## DIRECTORS.

JOHN RULE DANIELL, Esq., Camborne, Cornwall.  
T. S. G. KIRKPATRICK, Esq., Oxford and Cambridge Club, Pall Mall, and 38, Eccleston-square, S.W.  
THOS. H. POTTER, Esq., High Beech, Essex.  
ARTHUR UPTON CHALLINOR, Esq., Hanley, Stoke-upon-Trent.  
JOHN FRANCIS STAINES, Esq., M.D., Southampton-street, W.C.

## BANKERS.

Messrs. TWEEDY, WILLIAMS, and CO., Redruth, Cornwall; and their London Agents,  
Messrs. GLYN, MILLS, and CO., Lombard-street.

## SOLICITORS.

ROBERT WOOD LOCKWOOD, Esq., 20, Park row, Leeds.  
LONDON AGENTS: Messrs. NORMAN, ALLEN, and CARTER.  
20, Bedford-row, W.C.

## RESIDENT MANAGER—MR. W. R. RUTTER.

## BROKERS.

Messrs. CHAMBERS and Co., 5, Southampton-buildings, Chancery-lane.  
SECRETARY—MR. CHARLES S. DAVIES.

## OFFICES (pro tem).

5, SOUTHAMPTON BUILDINGS, CHANCERY LANE, W.C.

The object for which this company is formed is the developing a piece of ground situated in close proximity to some of the most productive and celebrated mines in the world.

The "Investor's Guardian," of Feb. 7, says—"The ground selected for operations is a set of some extent to the north-west of the celebrated West Saxon and Wheal Saxon Mines, and, as is well known, the Camborne mining district is one of the most productive in the world. A tabulated statement of seven of the principal mines in that district, showing the amount expended and the dividends returned, proves that an expenditure of much less than £200,000 has given more than £2,000,000 in returns. From the general character of the district, and the particular indications in the set itself, there is fair probability of the Kehelland Consols turning out a great mining prize. This anticipation is borne out by the reports of many of the best mining captains and authorities in Cornwall."

Capt. Rutter, of Redruth, Camborne, says—"This set may be regarded as an extension of the northern run of mines of this district—the Wheal Saxon and Roskrudd—which have already paid such large profits." Capt. Edwin Hoskin, of Pool, says—"I have no doubt you will have a profitable mine." Capt. Joseph Michell says—"Without a doubt on my mind it will turn out a great prize." Capt. W. C. Vivian says—"There is more than the ordinary probabilities connected with new mining ground in favour of a good discovery of copper being made." Capt. Josiah Thomas, of Dolcoath Mine, says—"I consider it to be a speculation of a promising character, presenting good chances of copper ore being met with at an early period." Capt. Wm. Rowe, of West Frances, says—"That those who take an interest in the concern, and see that their money is legitimately and economically expended, will be amply rewarded." Capt. James Pope, of Redruth, says—"Such a piece of mining ground as this can seldom be met with in Cornwall, and I can safely recommend it as a good speculation to any company of gentlemen inclined to speculate in mining."

Messrs. Chambers are empowered to offer to the public 3000 shares of £2 each, fully paid up, in this company. They can most strongly and confidently recommend investment in these shares, the reports being of such an exceptionally favourable character, and from the most experienced and respectable mine agents in the kingdom.

Prospectuses and forms of application to be obtained from Messrs. Chambers and Co., 5, Southampton-buildings, Chancery-lane, W.C.

FIRST ISSUE, 10,000 SHARES.

# THE THAMES AND GENERAL LIGHTERAGE AND TRANSIT COMPANY (LIMITED).

Incorporated under the Companies Acts, 1862 and 1867.

Capital £100,000, in 20,000 shares of £5 each, £2 payable on application, and £1 on allotment.

The balance in two instalments, payable at three and six months.

A rebate of 10 per cent. will be allowed on all shares paid up in full.

## DIRECTORS.

Major the Hon. O. G. LAMBART, Royal Thames Yacht Club, 7, Albemarle-street, W.

WILLIAM SALL, Esq., M.D., Junior United Service Club, Deputy-Inspector-General of Hospitals.

CONSTANT MERTEENS, Esq., Shipping Agent by Appointment to the Belgian Government, Walbrook House, Walbrook.

Commissary-General ROUTH, Civil and Military Club.

JOSEPH ALLEN, Esq., 69, St. Mark's-square, West Hackney.

JNO. HONEYWOOD TERRY, Esq., Boscobel-gardens, Regent's-park.

BANKERS—IMPERIAL BANK, Lothbury, E.C.

SOLICITOR—FREDERIC NORRIS, Esq., 50, Bishopsgate-street Within.

AUDITORS—Messrs. CROYSWILL, SAFFREY, AND CO., 14, Old Jewry.

Chambers, E.C.

SECRETARY—EDWIN MILLER, Esq.

MANAGER—MR. J. W. B. KEMP.

OFFICES—50, BISHOPSGATE STREET WITHIN.

The object of the company is to meet an important requirement connected with the commerce of the Thames, by organising a fleet of barges, to facilitate the speedy transit of the shipping business, which is often impeded for want of this accommodation.

It should be recollected that the number of ships entered and cleared in London is greater than on any other river in the world. Admitting the tonnage to be slightly greater in Liverpool, the number is larger in London; but if we take the entered and cleared tonnage along the river to the mouth of the Nore, it is, as well as the number of ships, more extensive than in the Mersey, and barges are much more required for loading and unloading.

This may be exemplified by the large number of firms situated above bridge, and constantly importing and exporting commodities requiring barge assistance, and it must be borne in mind that the deliveries can be made along the Thames, as far as it is navigable, for any craft by means of barges alone.

There are no fewer than 320 large firms, exclusive of a great number of small traders, whose aggregate business is very considerable. Of the first-class 320, no fewer than 50 are coal merchants. The imports of the latter are sent up the river to Chelsea, Fulham, Hammersmith, Kew, Richmond, Kingston, and even beyond. Coal delivered at London Bridge and above it is often sent down the river again to Gravesend, Dover, Ramsgate, Margate, Broadstairs, Folkestone, and coastwise, and exported also especially to the French coast, and other parts of the Continent. There are 42 timber merchants above bridge, and as in the case of coal, these import by barge up and down the river, and must inevitably unload by that instrumentality.

There are the same number of brewers also above bridge—42. Stout, porter, and ale are transmitted up river, and as the export of malt drinks has become an enormous trade, and is rapidly increasing, a considerable extension of barge accommodation is imperatively demanded.

There are also 12 distilleries engaged in an upper river, all largely engaged in export trade.

The merchants above bridge trading in cereals and other vegetable products on a large scale are 18 in number, and the numerous large mills abutting upon the Thames give rise to a considerable river trade from that source. This country is now not only an importer of corn, but is also an exporter. In consequence of the free trade in corn it has become a focus of commerce in connection with it, as Sir Robert Peel predicted would be the case.

There are not fewer than 150 other large firms employing barges situated above London Bridge, and the whole of these 320 establishments rely almost entirely upon the assistance of barges in loading and unloading.

Frequently under the present system great delay in connection with shipping a serious loss occurs. Besides, many vessels, especially grain laden, are compelled to unload and reload in a given time.

The Thames and General Lighterage and Transit Company purpose to supply a thoroughly effective service of barges, which will render the delivery inward and outward of cargoes expeditions, safe, and reliable.

So rapidly does the commerce of London augment, that the present supply of barge accommodation is utterly inadequate. This inadequacy must be daily felt more and more. It is, therefore, obviously reserved for the projected society, possessing the necessary capital to carry out the purpose expressed, and afford at all events, in the first instance, barge accommodation on the Thames.

The profits made by barge proprietors at present is from 50 to 60 per cent. on the capital employed.

The proposed capital will put at least 200 barges on the river, with steam tugs to work them, thus rendering them independent of wind and tide. At present there are 6000 barges, only equal to a tonnage of 210,000, which is far below the demand.

The estimate of the earnings of the association has been most carefully made, and all exaggeration avoided, which upon the capital will pay 14½ per cent. per annum, so that in about seven years each investor would receive back the total amount invested.

The plans of the company are efficient, and can be promptly carried out, offering one of the most safe and most profitable investments, and one which every investor can see at work under his own eyes, and the nature of the operations of which he can always be competent to form an opinion.

Applications for shares must be made in the annexed form, accompanied by a deposit of £2 per share on the number applied for.

A large number of shares have been subscribed for, and certificates will be issued in order of date of application, but the directors do not bind themselves in any case to issue the full amount applied for.

Forms of application for shares may be obtained from the bankers, brokers, secretary, or solicitor to the company.

# THE THAMES AND GENERAL LIGHTERAGE AND TRANSIT COMPANY (LIMITED).

## FORM OF APPLICATION FOR SHARES.

(To be returned by the Bankers.)

To the Directors of The Thames and General Lighterage and Transit Company (Limited).

GENTLEMEN,—Having paid to your credit at the Imperial Bank (Limited) the sum of £ , being a deposit of £2 per share, upon shares, I have to request

that you will allot me the said shares of £5 each in The Thames and General Lighterage and Transit Company (Limited); and I hereby agree to accept such shares or any smaller number that you may allot to me, and I authorise you to place my name upon the Register of Shareholders for the shares so allotted.

I am, Gentlemen, your obedient servant,

Name in full \_\_\_\_\_  
Residence \_\_\_\_\_  
Profession or business \_\_\_\_\_  
Usual signature \_\_\_\_\_  
Date \_\_\_\_\_

## Registration of New Companies.

The following joint-stock companies have been duly registered:—

**MINING AND GENERAL SYNDICATE (Limited).**—Capital 60,000*l.*, in 5*l.* shares. To acquire, deal in, and work mines, quarries, &c. The subscribers (who take one share each) are—E. L. Davies, 102, Canonbury-road; G. J. Izalou, Holy Mount, Hampstead; T. Keeling, 12, Cadogan Terrace, Chelsea; R. Doucar, Liverpool-road, N.; Thomas Gibbon, 27, High-street, Borough; W. Mapleson, 157, Barnsbury-road; N. T. Tremer, St. Peter's-street, Islington.

**LONDON AND PROVINCIAL SUGAR REFINERY COMPANY (Limited).**—Capital 100,000*l.*, in 10*l.* shares. To carry on business as sugar refiners. The subscribers (who take one share each) are—James Bryant, Southsea; J. Woodward, Portsmouth; Robert Kingsbury, Portsea; E. Gae Catesfield, Fareham; A. H. Wildy, Albert Terrace, Clapham-road; F. M. Walsham, Mincing-lane; A. W. White, Portsmouth.

**WEST CUMBERLAND UNION COLLIERIES (Limited).**—Capital 120,000*l.*, in 10*l.* shares. To acquire the interest of Mr. John Wright in the Dearham Colliery, in Cumberland, and in other property adjoining. The subscribers are—Isaac Armstrong, Selway House, Flimby, Cumberland, 300; John Wright, Osmanton Manor, Derbyshire, 5; H. O. Hagan, 18 and 20, Queen Victoria-street, 200; A. Bingel, 15, Leadenhall-street, 1; Thos. Jerris, 3, King-street, Cheapside, 1; J. T. Muir, 31, Park-lane, Leeds, 1; and W. H. Costello, 3, King-street, E.C.

**ALDRIDGE COLLIERY COMPANY (Limited).**—Capital 40,000*l.*, in 20*l.* shares. To acquire a colliery at Aldridge, Stafford. The subscribers are—G. Adams, Goldthorn-hill, Wolverhampton, 100; A. Baldwin, Wilden, near Stourport, 100; J. Burnet, Broseley, 100; W. Ealey, Broseley, 100; J. Arrowsmith, Exley, Broseley, 100; N. T. Tremer, St. Peter's-street, Islington.

**SOUTH WYNOAD COFFEE COMPANY (Limited).**—Capital, 100,000*l.*, in 10*l.* shares. To cultivate coffee at South Wynoad, Malabar. The subscribers (who take one share each) are—G. H. Connan, 16, St. Mary Axe; A. G. Dallas, 3, Emmersome-gardens, W.; N. Lees, 12, St. James's-place; A. A. Von Glehn, 9, Fenchurch-street; E. G. Von Glehn, 9, Fenchurch-street; R. Von Glehn, 9, Fenchurch-street; G. A. Rigg, 18, Billiter-street.

**HOLLINGWOOD SPINNING COMPANY (Limited).**—Capital, 40,000*l.*, in 5*l.* shares. To acquire cotton-mills at Hollingwood. The subscribers (who take one share each) are—J. Hilton, Oldham; G. Denton, Oldham; J. Hunt, Oldham; W. Gel, Oldham; W. Waterhouse, Hollingwood; J. Kenworthy, Hollingwood; and W. Holt, Oldham.

**HILTON HOUSE AND RED MOSS COLLIERY COMPANY (Limited).**—Capital 60,000*l.*, in 20*l.* shares. To take over the Hilton House and Red Moss Estates. The subscribers are—W. Spalding, Blackburn, 250; W. Townley, Clitheroe, 50; E. Monk, Brookpool, 25; A. Jones, Blackburn, 250; E. C. Waddington, Padiham, 100; J. Watson, Blackburn, 100; J. Pearson, Clitheroe, Accrington, 25.

**BORELLI TEA COMPANY (Limited).**—Capital 120,000*l.*, in shares of 10*l.* To acquire tea plantations in Assam. The subscribers (who take one share each) are—W. Martin, Exeter; A. N. Martin, Berkeley-gardens, Kensington; Robert Hyde, 2, East India Avenue; J. Williams, Palace Gardens-terrace; W. C. Braddon, 3, East India Avenue; H. H. Potts, Lewisham; G. Williams, East India Avenue.

**LEITCHFORD AND CO. (Limited).**—Capital 50,000*l.*, in 5*l.* shares. To carry on the business of Messrs. Leitchford and Co., match manufacturers, &c.

**ACRE MILL SPINNING COMPANY (Limited).**—Capital 60,000*l.*, in 5*l.* shares. To carry on business as cotton spinners.

## OBSERVATIONS ON RATING COAL UNDER THE SEA.

As this question is of considerable importance to the Unions on the north-east and north-west coasts, the following extracts from some observations addressed by Mr. Thos. F. Hedley, of Sunderland, to an eminent mining engineer will be of interest to many of our readers:—

The principle upon which coal mines are to be rated, where the shaft buildings and machinery connected with a colliery are in one township, and the coal is worked out of other township, is as follows:—The land occupied by the shafts, buildings, and machinery, together with the shafts, buildings, and machinery must be rated in the township in which they are situated, and the coal *per se* must be rated in the township from which the coal is worked. This is clearly laid down in R. v. Foleshill, 2 A. & E., 593, 4 N. and M., 360, 4 L. J. R. (N. S.), M. C., 63. And where the shafts are in one township, and the coal is worked from other townships, the townships through which the coal is brought to the bank will be entitled to rate the underground wayleave or outstroke, and the township in which the shaft is situated, the shaft. Up to the year 1868, the boundaries of townships on the sea shore were limited to high-water mark, and the sea shore between high-water mark and low-water mark was *prima facie* extra parochial (R. v. Musson, 8 E. & B. 900, R. v. Gee, 1 E. & B., 1068), unless it could be proved that the parochial officers and parishioners had exercised rights over and claimed by perambulations, or otherwise, the land between high-water mark and low-water mark to be within their townships (McCann v. Sinclair, 33 L. F. 221). The 31 and 32 Vic., cap. 122, sec. 27, fixes and determines the township boundaries on the sea shore to be the low-water mark, therefore there is no doubt but all coal down to low-water mark is within the adjoining township. Then comes the question of the coal under the sea beyond low-water mark. If the sea be, as it is alleged to be, "extra parochial place," and it is important to observe that the sea shore has been held to be extra parochial, the coal under the sea will be annexed to and incorporated with the adjoining townships, and rateable in such townships, under the 31 and 32 Vic., cap. 122, s. 27, but if the sea beyond low-water mark be not an extra parochial place, then this statute will not apply, and the coal under the sea beyond low-water mark will not be in any township, and, therefore, not rateable unless the coal and the works connected with the mining operations under the sea are to be treated as accretions from the sea, which, whether natural or artificial, are by the statute before quoted to be added to and included in the adjoining parish, and rateable, and it has been held immaterial whether the rateable subject be on the surface, as canals, or under the surface, as gas or water pipes, or above the surface, as telegraph wires, they are rateable, therefore both the coal and works under the sea may fairly, for the purpose of assessment, be treated as accretions.

It is also important to observe that in law the word "accretion means property acquired," "something not occupied by its adhering to or following another thing already occupied." The coal under the sea certainly adheres to and follows the coal under the adjoining land, which is occupied, and rateable, and the works under the sea connected with coal mines follow the works under the land which are also occupied. Your lawyer will tell you that the question of the rateability of the coal under the sea here made low-water mark is a legal question, and one that can only be satisfactorily settled by a decision of the Superior Courts; that being so, in my opinion it will simply be a waste of time and money to prosecute an appeal to the Quarter Petty Session, as all the facts can easily be agreed upon, and a special case stated at once for the opinion of the Court of Queen's Bench, which will save both time and money, and get the matter satisfactorily settled.

## GEOLOGICAL SURVEYS OF SOUTH MISSOURI.

A carefully compiled synopsis of the geological surveys, by Mr. J. Vanclève Phillips, of various mineral fields in Missouri has just been completed preparatory to the issue of the atlases and accompanying letter press. The geology of the lead fields is illustrated by a volume of atlases 18 in. by 14 in., showing 217 sections of strata, plans, diagrams, and topographical maps of the lead districts of Wisconsin and Missouri. The book opens with sections of strata of Mississippi Valley so far as determined, section of strata of Upper Mississippi lead fields, diagram of the vein system, being a grouping of all the lead and zinc veins into families, and a vertical view of the stratigraphical position at which these ores occur. There are numerous topographical maps of great practical value, as they give complete details of the water sheds, mines discovered, and basin system of the fields surveyed, and which embrace the great central continental specular iron field of Dent, Crawford, Phelps, and Texas counties, and of 59 townships, including in all upwards of 2,000,000 acres. The last page of this volume is an ideal map showing knobs around Salem, and present and prospective railroad system that this ore will be shipped over to coal to be smelted. The edges of the Illinois, North Missouri, and South-west Missouri coal fields are shown, with their iron knobs in the centre. St. Louis, Iron Mountain, Belmont, Little Rock, Fort Scott, Kansas City, and completed railroads are shown in black, and prospective railroads branching from this great iron centre, in five directions, in red ink.

Another volume of 170 pages, and of larger size, contains an enormous number of plans and sections, and 84 geological township maps. Each map has the different limestones, sandstones, granites, and porphyry dykes traced out and shown in colours, a vertical section of strata across each township is added at the bottom. The dips of basins shown, and timber boundaries of pine, oak, and soft woods traced out in blue, red, and purple ink; the timber growth is also shown on the vertical section with general depths of clay over the rock, the lines of axes (points which the strata dip to and from) are shown on each map. Phillips's Topography of the mineral fields of Missouri is another volume embracing 84 topographical maps in four colours. Each map includes an area of 23,000 acres, the topographical features of each township, its water-sheds, with all their branches, miniature rivers, and creek basins are shown in colours; the timber boundaries of pine, oak, and bottom timber; the floor of each is enclosed with red, blue, and purple lines. A vertical section of strata is added at the bottom of each map, showing the dips, altitudes, basins, floors of veins, and this section connected with the map in dotted lines. Here are the deductions of a study of the wonderful topography of country of the central part of the basin of the Mississippi for 30 years. No work of this kind has been attempted since Humboldt's works were published in Paris some 40 years ago, being the geology and topography of continents. What the author of Cosmos has shown in the topography of continents, Mr. Phillips claims to have here shown for each township. The atlases are very comprehensive, and the author estimates that it will require about a year to write up his deductions on the different township, geological, and topographical map now bound.

Mr. Phillips's present intention is then to produce the work in a more elaborate and finished form, including any other volumes (they will make ten atlases the size of these), and have them ready to exhibit at the centennial fair at Philadelphia, to show the progress made in the country in the century in dynamical and economical geology, and that all practical mining operations should be based on

this science. The results reached in geology of townships mapped show 1,500,000 acres of lead fields; these are subdivided into districts bearing north and south vertical veins. East and west pipe veins, stratified veins, all the basins are known, all the ores discovered identified as the croppings of the vein system, basins gauged and ores mentally seen that will occupy many centuries to mine. Three copper fields examined, area 1,000,000 acres. These will bear three types of veins, stratified, gash, and true veins; 1,500,000 acres of specular and hematite in fields examined, croppings of veins yet only touched; 1,000,000 acres of quartz-bearing districts examined—bismuth, tungsten, tin, silver, and gold indicated in veins equally as rich in these metals as the mines of Cornwall or the Pacific States. From the nature and value of the maps, &c., as judged of from the above description, it would certainly appear to be a matter for consideration whether it would not be worth the while of the State to undertake the issue of the atlases for the sake of the benefit which their publication must secure by attracting outside capital for the development of its mineral resources.

## BRITISH ENTERPRISE IN PERU—THE BELLAVISTA COMPANY.

The formal inauguration, on Dec. 30, of the San Lorenzo Smelting Works was made the occasion of a very interesting official visit to the island upon which they are situated, a handsome corvette being provided for the accommodation of the visitors. Amongst those present were his Excellency the President, the Foreign Minister S. D. Jose de la Riva Aguiro, the Minister of Justice S. D. Eusebio Sanchez, the Home Minister S. D. Francisco Rosas, the Prefect of Callao, Colonel Velarde, S. D. Enrique Meiggs, the President of the Lima Provincial Council, S. D. Aurelio Denegri, Post Captain Pablo de Zela, Senator Torres, and many of the most influential merchants and gentlemen of Lima and Callao. The party upon landing were received by Colonel Josiah Harris, who conducted them over the stone quarries, tramways, assay-office, crushing-room, calcining-furnace, refinery, lead-pipe factory, machinery department, &c., and in the course of a highly interesting address delivered by Colonel Harris at the banquet to which the visitors were subsequently invited, he said that his Excellency and those accompanying him had been pleased to honour them with a visit to their works, being the first of the kind erected in Peru for the smelting of metals, the separation of silver and the conversion of the lead into pipes; and he took occasion to explain what led to its establishment, and refer to the destruction in 1868 by earthquake of the works at Iquique.

In 1872, he continued, the site of the present works was a mountain side and a sea beach; in its place to-day you have seen immense excavations, sea walls, a pier, tramways, houses for workmen, factories, assay office, smiths' shop, two calcining furnaces, a flowing furnace, a cupola furnace, a silver refinery furnace, lead softening furnace, dissolving pots, ore floors, extensive flues, a stone and iron chimney, 60 ft. high, and we have also erected two boilers, two steam-engines, one equal to 30-horse power, a lead pipe machine capable of making pipes from  $\frac{1}{2}$  in. to 7 in. in diameter, ore crushers, atmospheric stamps, saw benches, and a gasworks. In these works we have quarried and used upwards of 11,000 tons of stone, 160 tons of lime, 40 tons of cement, 80,000 fire-bricks, 130 tons fire-clay, 40,000 ft. of lumber, 39 tons of galvanised iron, 70 tons of iron, and 65 tons of iron castings. In 14 months these works have been completed, and you have seen them in full operation to-day. They are capable of smelting 400 tons of ore per month, and may be enlarged as found necessary. At present about 200,000 soles have been expended on the works.

Peru is essentially a mining country; its future progress and prosperity depend upon the development of its mineral riches. The country teems with veins of silver, silver-lead, copper, and other minerals. Their richness is fabulous. The records at Madrid show that Cerro de Pasco, Hualgayoc, and Huantajaya, three mining districts only, produced during the occupation of the Spaniards, up to 1803, 169,889,100*l.* sterling:—From Cerro de Pasco, 61,860,320*l.*; from Hualgayoc, 38,028,780*l.*; from Huantajaya, 70,000,000*l.*; and silver was valued at half what it is now. The mind can scarcely comprehend the immense wealth produced from this country with the crude appliances and unskilled labour. Mining decadence is taking place yearly. Enquire what is now being done in the three mining centres I have named. You will find that in 1842 Cerro de Pasco produced 300,000 marcos of silver; in 1872, 30 years after, with more skilled labour and appliances, it only produced 200,000 marcos. Hualgayoc is all but silent, Huantajaya the same, their population scattered, their towns deserted, and their homes in ruins. This sad state of affairs has not taken place from the poverty of the mines; they are as rich to-day as formerly. The cause may be traced from the day the first gun was fired to free a down-trodden people from the iron despotism of Spain, and the people have not resumed their former occupation. There are tens of thousands of rich lodes only waiting for capital and skill to produce their wealth. Señor Col. Frederico La Fuentes, the mining deputy for the province of Ancachs, whose family once worked the mines of Huantajaya, and paid the King of Spain 5,000,000 soles in duties, and also presented him with a piece of native silver weighing 35 cwts., a piece of which may be seen in the Museum at Madrid now, will bear me out when I assert that in one mountain above Cerro Colorado there are over 400 veins, one of which is 100 yards wide, and can be traced for leagues, giving at the surface 14 mares of silver per cajon. This is one out of many hundred errors which are completely ribbed with veins of metal.

If Cerro Colorado were properly worked it would produce more material wealth to Peru than all the guano that ever left or will ever leave the coast. It is not three months since I discover another mighty lode near Lucremarca, 60 yards in width. I traced it for league after league; it has never been worked upon. Foreigners should know of these immense mineral lodes, and that they are available for them, as the mining laws of this country are so liberal that they make no distinction between natives and foreigners, and I shall, as I have always done during my residence in Peru, hold out the hand of fellowship, and give every assistance in my power to develop its wonderful riches. You have seen to-day, Sir, the works in operation, and you must be aware of our great outlay, and we hope the Government will take an interest in our success, and render us assistance in the construction of the ores by repairing roads, settling a fair tariff for railways, and promoting immigration of a suitable character. These works, now in their infancy, will increase with giant strides, to the great advancement of the social, commercial, and political prosperity of the country. In respect to roads, the old roads should be repaired, and new ones made to act as feeders to the railways constructed and now being made. This merits immediate attention, as railway work brings little freight unless they have roads connected with them. Peruvian railways must look for remuneration to the conveyance of minerals; there is little or no other traffic. Look at the Ilo and Moquegua line. One train a week is sufficient to carry on all the trade, and this is purely an agricultural line.

The country has submitted to heavy sacrifices, and is now under heavy liabilities for railways, and I would most earnestly press upon the Government the absolute necessity of lowering the tariff for metals. The present rates are prohibitory, and mines remain unworked in consequence, to the great injury of the community. In order that your Excellency may be informed, I will give you one instance—copper ore can be raised in this country in quantities equal to that raised in Chili. We are working five mines at Ica, and are sending ores of 25 to 30 per cent. by rail to Pisco. The freight is so high that we cannot afford to send a lower produce, whereas if the cost of transit was the same as charged in Chili for the same distance we could send 20 tons of poorer ore where we can only send 1 ton of rich; in fact, mules are competing with the railway between Ica and Pisco. We have 40,000 qts. of ore near the Arequipa Railway, where it must forever remain unless it can be conveyed to the coast at a low rate, and I am in hopes an arrangement will be entered into satisfactory to all parties. I speak from experience that unless the railroads develop the mineral traffic of this country it had been better they had never been built. There is but one more subject I will trouble you with bearing upon the success of the mining industry of this country, and our works must go hand in hand with it—it is the labour question. In one district (Macate) where we have mines at work the best days are so frequent that the actual working days are but 120 in the year. Under such a state of things it is not possible to place any dependence upon local labour. Mines to be successful must be worked continuously, or they had better not be worked at all. I would call your Excellency's attention to a class of immigrants that would be most serviceable in



this country—miners and dressers of metals; they would work in the same description of rock and metals as in Europe, and the climate is about the same as they have been accustomed to. The mining industry of this great country cannot progress without such labour, and the future status of Peru depends upon the opening up of its mineral treasures.

### THE PEAK DOWNS COPPER MINE, AUSTRALIA.

By JAMES BONWICK, F.R.G.S., Author of "Daily Life of the Tasmanians," &c.

Although there are no English shareholders in this Queensland undertaking, yet, as it stands forward as the copper exponent of that colony, an account of it may have points of interest.

The mine is singularly like to Burra Burra in its cupriferous irregularities, and most unlike it in its geology. The South Australian copper workings are usually in good honest killas; and though the slates, limestones, and sandstones are metamorphic, the igneous element is rarely present. At the Peak Downs, on the contrary, the latter predominates. The country around is one of the finest pastoral districts in the world, because of the decomposition of the basaltic rocks.

The Peaks are represented as *domite*, a sort of earthy trachyte, and so resembling the Puy de Dome region of Auvergne, in France. Some mineralogists refer to the rock of the mountains as a dolerite or basalt. Mr. Daintree notices the same in other parts of Queensland, as that at Dotswood, a tributary of the Burdekin, northward of the Peaks. "The rock enclosing this," says he, "is amygdaloidal dolerite, itself containing a little copper and copper ore, but only near the patches of quartz. Near the Mount Coora almost the same conditions of cupriferous impregnations of decomposed dolerites obtain." He thinks these cupriferous altered dolerites resemble in composition the interstratified mineral traps of Lake Superior. And yet he carefully reminds us that at the Peak Downs the copper is in true lodes, and not from contact with igneous dykes.

The hornblende granite is largely developed through the elevated district about the Downs, though the specific formation is termed metamorphic Devonian. The rich metalliferous deposits are described as being at the intersection of the acid-felspathic dykes with the mica schist and the hornblende schist. With the granite proper of Queensland the only metal found is the molybdena glance. The Devonian limestone of North Queensland is expected to reveal many a copper mine. The older volcanic rock—conspicuous at the Darling Downs not less than at the Peak Downs—is often found associated with metals, though being, probably, only of the miocene age. Mr. Allport noticed mining ground upon the Bowen river, and remarked, "It must have been originally as scoriaceous as any recent lavas, but now forms a hard solid mass of zeolitic mineral matters." He found cavities filled with calcite and green carbonate of copper.

The Peak Downs Copper Mining Company has a capital of 100,000*l.*, in 1*l.* shares. It is essentially a Sydney association. As the gentlemen look for a dividend, and are not otherwise interested in the undertaking, the Queenslanders are disposed to reproach them for their selfish ideas—natural though they be. As the said dividend has not been much of late, the shareholders are complaining. But a Brisbane paper of Oct. 30 last observes, "What stands most in the way of the development of copper properties is that they are chiefly in the hands of capitalists who do not reside in the colony, and hold merely for speculative purposes."

Although the Mount Perry country of Wide Bay and Burnett district has taken a leading position of late, giving employment to 3000 men, and including the largest proportion of the half-hundred copper companies of the colony; yet the Peak Downs Mine had, even up to June, 1870, yielded 5539 tons of refined metal, from 29,168 tons of ore. A fine lode, at 40 fms., extended 1500 ft. in an east and west strike, with an average width of 2 ft.; and in spite of complaints in Sydney during part of 1873, one wrote from the Downs that the mine "continued to turn out well, notwithstanding that the shares go up and down, under the influence of the operations of the shareholders."

The best news, however, came by the late mail. The new lode of black oxide was so satisfactory that the shares had advanced 20 per cent. at a bound. The expenses of the mine for seven months, or to end of June, 1873, were 62,789*l.*

Mr. J. S. Mitchell made an interesting report of the Peak at the close of 1872. He referred to the lamentable want of labour. This was not wonderful under the temptations of gold fields in Queensland, over an extended line of a thousand miles. The engagement of miners in England is the only resource of companies. The reserve of ore at surface had fallen; the percentage had lowered just then from one shaft through two causes—the difficulty and danger of timbering the ground, together with the disappointment of finding the ore crossed with bands of mundie. The furnaces still turned out 350 tons per week, though only at 123 per cent., instead of the former rate.

The improvement set in soon after, leading the reporter to say—"The more I learn of this mine the more I expect from it. The outcrop is the finest I or any of the people here have ever seen; it extends from our boundary fence about 1200 fms., with only one break of 200 fms., across a flat, where the greatest yield is expected, the general dipping of the lode being toward it; this is where our new shaft is now sinking. Out of the whole 1200 fms. only about 350 have been worked, and that only to a depth of 30 fms., for below that little or nothing has been taken away."

Speaking of the lode, Mr. Mitchell refers to it as continuous throughout. "It is unique in its way," he adds, "being east and west—most others in the country being north and south—it has no branches, or faults, or parallel lodes—it does not break into the county like many metallic veins, irregularly, but lies alone in conformity with the strata of micaceous clay-slate both above and below it from end to end—like a sheet of paper between the leaves of a book. Nearly every variety of ore has been taken from it—malachite and other carbonates from the upper levels, oxides of all colours, black and yellow sulphurets in the 20 and 30 fm. levels, with masses of malleable copper. Up to the present time just 10,000 tons of copper have been produced from the small part worked, worth at present rates about 1,000,000*l.* sterling. Within the last few days malleable copper has been found in the western part of the mine in a rich lode, and in other parts everything looks favourable. When we consider that during the past five years dividends to the amount of 215,250*l.* have been paid, and 53,577*l.* 3*s.* 1*d.* written off the book value of the mine, and this with scarcely an average of 120 miners, we have no reason to complain of our property or our officers—it bears comparison with any mine I have heard of."

The mine was fairly supplied with timber, the consumption being 1400 tons weekly, averaging 6*s.* 2*d.* a ton; long droughts or heavy rains, however, seriously interfered with the regularity of supply. The ferruginous sandstone at the west end of the lode was looked on as very hopeful. Mr. Mitchell had faith in the old maxim of "Mundie rides a good horse." He observes, "Deeper down in the mines rich ores are found under bands of mundie, as if the iron were thrown up by the copper." He concludes his report with a statement of his belief that the Peak Downs Mine is "one of the richest copper mines in the world."

Mr. Josiah Holman's report is dated from the Peak Downs, Aug. 11, 1873. He describes the operations in the shafts called after Mitchell, Nicholls, Josiah, Andrews, and Roberts, after mapping out the underground works, with the line of the lode outcrop. The surface outcrops some years ago were very rich carbonates and oxides, continuing 15 fathoms deep, and followed by some extraordinary bunches of black ores. In the 40 fm. level a lower class came in view, particularly some poor pyrites, with yellow ores in hard schistose rock.

The gentleman, however, takes encouragement from Cornish experience, as, after sinking through the deteriorated ores, especially pyrites, excellent deposits have often reappeared. The hard zone of pyritous material was trying to patience. Mr. Holman suggested that one of the shafts should be carried down 20 fathoms to test the ground below the 40 fm. level, declaring that "unless this provision is made the whole heart of the mine above the 45 and 40 fm. levels will be gutted out at most within two years, leaving only the western and eastern sections for development." While suspending operations

in some shafts, he encouraged Captain Dennis to proceed with others. There was then, last August, a pause in the prosperity of the mine. Several sections, nevertheless, warranted the expectation of proving payable. Plenty of good ore yet remained in the old stop ground, though the general yield hardly promised to keep 10 furnaces supplied. But, by extending the drives east and west on the lode, by sinking below the 45 and 40 fathom levels, and by shallow works on the whole line of outcrop, future profitable discoveries were calculated on.

The recent news of the rich oxide will afford the best commentary on Mr. Holman's report, and must encourage the colonists in their belief of the Peak Downs Mine. The last mail reports that the prospects of the mines are decidedly improving.—*Iron.*

### ARTIFICIAL FUEL FOR SMELTING.

For some years past Mr. D. BARKER, of Northfleet, has been engaged in perfecting his processes for the conversion of small coal into useful fuel, and his last patent certainly shows satisfactory progress. His invention has for its object the treatment and utilisation of coal, whether anthracite or non-bituminous, or bituminous, or lignite, peat, or other similar carbonaceous substances, coke, charcoal, and other carbonaceous substances, when in a state of powder or fine division, so as to produce a solid and smokeless, or comparatively smokeless, fuel, especially adapted for smelting iron and other metals. The fuel manufactured under Mr. Barker's previous patents has been found incapable of bearing the great weight to which the fuel employed for blast-furnace purposes is necessarily exposed, as immediately it is subjected to a great degree of heat it softens; and although it will afterwards harden in the fire, and burn to a coke, yet the circumstance of its softening in the first instance is highly prejudicial, and renders it inapplicable to smelting metals. The present invention, however, obviates these objections and difficulties, by the use of a carefully-chosen agglomerating material, and a special method of combining it with the fuel. When coke is in the first instance employed in manufacturing the artificial fuel, the coke, which has been prepared in the manner already well known and understood, having been reduced to a state of powder or very fine division, by any suitable means or apparatus adapted for the purpose, is mixed in a suitable pug or mixing mill, in the proportion of 1 lb. of the latter with 2 ozs. of the mucilage or liquid which will presently be referred to. The mixture thus made is exposed to heat, and moulded into blocks by means of any suitable apparatus adapted for the purpose. The blocks are then placed in a retort, and exposed to the influence of heat, in order to evaporate the liquid or moisture contained therein, or a sufficient part thereof, when the blocks will become perfectly solid, and fit for the purposes referred to.

When anthracite or other coal or carbonaceous matter is used it is prepared in the same way as the coke dust, and then formed into blocks and coked, or coked without any admixture of the mucilage. In either case the coke thus produced is ground or reduced to a state of dust, or powder, and is then mixed in the same proportions with the mucilage, or liquid. The mixture thus formed is made into blocks, which are placed in retorts, and exposed to heat in order to evaporate the moisture contained; this method of treatment being, in fact, equivalent to a re-coking of the materials under treatment. In some cases, as, for instance, when the fuel is to be used for ordinary purposes in which great cohesion or capability of bearing a heavy burden is not required, the coal or other carbonaceous material is combined with the mucilage, or liquid, as before mentioned, and then exposed to heat and formed into blocks without being subjected to the operation of coking.

In the manufacture of the mucilage, or liquid, which Mr. Barker uses for the agglomeration, one part of farina from which the gluten has been removed, and which consists entirely, or almost entirely, of fecula, or starch, is mixed with twenty parts of water, and a solution of sulphate of alumina or of chloride of alumina in hydrochloric acid is added thereto, in the proportion of  $\frac{1}{2}$  oz. per gallon. Although, by preference, the farinaceous mucilage before described is used, any mucilage prepared by the mixture of any ordinary farinaceous substance with water may be employed; and if the solution of sulphate of alumina or of chloride of alumina were used alone with water it would cause the coked particles firmly to cohere, but such use would not be so advantageous as the use of the mixture, or mucilage, hereinbefore described. The mixture thus formed is conveyed into a tank heated by steam, and in which it is boiled, and then run off through a tap into a boiler, in which are placed pitch and carbolic acid, in the proportion of eight parts of the former to two of the latter. The whole contents of the boiler are subjected to the operation of boiling under moderate pressure, as well understood, by which treatment the several substances contained in the boiler are caused to unite. Steam is then turned on into the boiler, and the contents thereof forced through pipes into a tank, whence the liquid is conveyed by means of elevators to the pug, or mixing, mill, in which it is mixed in sufficient quantity with the coke or coal, which is conveyed in a powdered, broken, or disintegrated state by a separate set of elevators into the pug, or mixing, mill or mills. This is an operation which is carried out in the ordinary way hitherto used.

The proportions of the several substances above enumerated are approximative only, as they may, and in many instances must, be varied according to the nature of the coal or carbonaceous material under treatment, as will be well understood, or soon ascertained from experience in the process by persons acquainted with such operations, and with the respective qualities of the coal or carbonaceous material employed. The heat employed for heating the liquid when in the tank is fire heat, and also that of steam. The elevators are cased with sheet iron and wood, and steam is introduced between them to keep the liquid from solidifying. A small furnace is placed under the pug mill, into which furnace is introduced a hot-air pipe, with a steam coil around it, and by which superheated steam is introduced into the pug mill, a fan being also employed to draw in hot air. A sample of the coke made from the refuse anthracite coal of the Pennsylvania and Reading Railroad by the process has been left at the *Mining Journal* office for the inspection of those interested in the subject.

**PRESENTATION OF A TESTIMONIAL.**—A public dinner was given at "The London," on Monday, to Mr. F. A. New, late manager of the Joint-Stock Coal Company, by the employees and friends, on the occasion of his retirement from that company and his acceptance of the London magistracy of the Newbold Coal and Iron Company. A testimonial, consisting of an illuminated address eulogistic of Mr. New's ability and suavity of manner, together with a purse containing 50 sovereigns, and a gold watch, was also presented to him. Among others present were the representative of the several collieries, and also of the Press.

**CHEMICALS AND MINERALS.**—(Messrs. R. R. Kelly and Co., Manchester, Feb. 20).—Chemicals: Acid, citric, 4*s.* 6*d.*; muriatic, 4*s.* 10*s.* to 8*s.*; sulphuric, 3*s.* 10*s.* to 6*s.*; tartaric, 1*s.* 7½*d.*; alum, best lump, loose and in barrels, 8*s.* 10*s.* to 9*s.*; ground, 9*s.* 10*s.*; cake alum, 6*s.* 10*s.*; ammonia, carbonate, 7½*d.* to 7*d.*; muriate, 32*s.* 10*s.*; sulphate, white and grey, from 17*s.* for 23 per cent. to 18*s.* for 25 per cent.; brown, 23 per cent., 15*s.*; sal ammoniac, 4*s.* to 45*s.*; arsenic, white powdered, 10*s.* to 10*s.* 5*s.*; benzole, 30 per cent., 2*s.* 3*d.*; 90 per cent., 3*s.*; bleaching powder, 10*s.* 10*s.* to 11*s.*; copper sulphate, 31*s.* 10*s.* to 32*s.*; green and rusty coppers, 60*s.* to 62*s.* 6*d.*; Epsom salts, refined, 6*s.* 10*s.* to 6*s.* 5*s.*; potash salts, bicarbonate, 8½*d.*; soda ash, 6*s.* 6*d.*; pearls, 4*s.* 6*d.* to 4*s.*; chlorate, 1*s.* 0½*d.* to 1*s.* 1*d.*; muriate, 80 per cent., 4*s.* 10*s.*; E.O.B.; red prussiate, 2*s.* 9*d.* to 3*s.*; yellow prussiate, 1*s.* 2*d.*; tartaric (cream of tartar), French, 5*s.* 9*s.*; saltpetre, 24*s.*—Soda Salts: Acetate, 37*s.*; bicarbonate, 16*s.* 15*s.*; borate (borax), refined, 75*s.*; soda ash, 48 to 50 per cent., 2½*d.*; soda crystals, 5*s.* 7*s.* 6*d.* to 5*s.* 10*s.*, ex ship; caustic, cream, 60 per cent., 18*s.*; white, 19*s.*; 70 per cent. white, 25*s.*; nitrate, 12*s.* 6*d.* to 13*s.*; Sulphate (Glauber salt), 4*s.* 10*s.* to 5*s.* 10*s.*; salt cake, 3*s.* 12*s.* 6*d.* to 3*s.* 15*s.*—Minerals: China clay, 42*s.* to 45*s.*; phosphates of lime, ordinary, 60 per cent., 1*s.*; 90 per cent., 1*s.* 4*d.* to 1*s.* 5*d.* per unit; Bolivian, 6*s.* 15*s.*; Canadian, 80 per cent., 1*s.* 4*d.* per unit; Estremadura, 1*s.* 3*d.* to 1*s.* 5*d.*; Curacao guano, 6*s.* 2*s.* 6*d.*; E.K., and 6*s.* 2*s.* to 7*s.*; Continent 70 per cent.; Chrome ores, 6*s.* to 8*s.*; copper ores, 14*s.* to 15*s.*; the unit; iron ores, red hematites, British, 25*s.* to 35*s.*; Spanish, none; clay ironstone, 15*s.* to 25*s.*; oolitic, 9*s.* to 12*s.*; burnt iron ores, 60 per cent., 5*s.* the unit; manganese ores, 70 per cent., 140*s.*; pyrites, cupreous, 8½*d.*; non-cupreous, 10*d.* the unit; antimony ore, 9*s.* to 12*s.*

LONDON GENERAL OMNIBUS COMPANY.—Traffic receipts for the week ending February 15, 1874, 6*s.* 3*d.*

### THE INDUSTRIES OF NORTH WALES.

#### NANTLLE SLATE QUARRIES.

The Dorothea Quarry is situated in the centre of the Nantlle Valley and is one of the most important in the district. The cleavage in the quarry is almost vertical, following the rule we have before stated. The quarry consists of four different pits or sink-quarries. The pits have now grown to an immense size. Their principal riches consist of the purple vein, which this quarry possesses in very great thickness. The red vein which passes through the property loses much of its value through the absence of foot joints. The pits are being worked downwards in ledges or galleries. Some of them are slung all day over the brink by a rope, a most perilous occupation, as loose rock from above very often falls down upon them. It may also be remarked that very many of the accidents which occur are caused mainly through the men's own carelessness. They become so accustomed to danger that it requires the greatest attention on the part of the agents to keep the men from rashly exposing their lives. The rubbish heaps of this quarry are seriously filling up all the available space. The huts in which the men dress and split the slates are ranged in rows along these banks, while a small locomotive passes along the lines, taking up the slates and delivering the rough blocks. The quarry is the property of a number of private gentlemen, of whom Mr. Williams, Glanbeuno, Carnarvonshire, is the principal representative. The quarry manager is Mr. John J. Evans. The number of men employed varies from 450 to 500.

Cilgwyn Quarry is the oldest quarrying enterprise in Nantlle, and possibly in North Wales. It is situated on the northern slopes of the valley. It was not until the present century that the operations were carried on here with anything like activity. The present company, the principal representative of whom is Mr. William Hayward, of Carnarvon, have been in possession for 24 years, and during the whole of that time the quarry has been under the superintendence of Mr. Ellis Williams. There are four separate pits belonging to the quarry. The principal riches of this quarry have been the Faengoch, the red or purple vein which is known throughout its course as Faengoch Cilgwyn. The descent into the principal pit from whence this vein is excavated can be made by a small car which travels along two steel girders. Once at the bottom, it will be observed that it is covered by a huge fall of trap-rock. The great fall took place three years ago, and since that time the workmen have been constantly engaged in removing it. The descent of the slate vein, as before explained, is into the centre of the mountain; and this huge mass of trap-rock lay on the northernly side of the pit, overhanging considerably. Ere it fell there were potent signs of the event. Loud cracks, much like reports of a gun, were heard continually. Everything was prepared, and the tramway which lay upon the floor of the pit removed. Luckily the mass gave way upon a Sunday evening, so that no one was in any way injured by it. The circumstance has very greatly crippled the resources of the quarry, but its entire removal is now quickly approaching. This pit is now 120 yards deep.

A peculiarity concerning the red spotted vein in this quarry is that it widens as it deepens. At the present depth of the quarry it is 60 yards wide. The oldest pit, called the Old Cilgwyn Quarry, is not being worked, owing to a great fall of rock from the northernly side, which has completely filled the excavations. At a future period this will, no doubt, be cleared out and worked with profit. The pit known as Cloddfa'r Clytiau is being worked very busily. The most profitable portion of the quarry is the northern, where the foot-joints are remarkably regular; the rock is thus very economic to quarry. The slate is here of a reddish hue. Immediately adjoining it is a hard purple rock, and further on a blue vein, through which there runs a remarkable oblique dyke of greenstone, regularly interspersed with white spar.

Ben-y-Bryn Quarry is situated to the north of Dorothea Quarry. It is an old speculation, and was formerly worked by Turner and Casson, two of the principal names connected with the development of the slate quarries in North Wales. It consists of four pits. All of them are more or less encumbered with rubbish, the result of successive falls, and requiring considerable attention at the hands of the manager. The slate is of a desirable purple and blue colour. There also runs between these veins, and to a certain extent through them, a thin seam of green slate, known as the green slate dyke. Mr. W. Davis is the manager of the quarry, which is owned by a private company.

The Tylsarn Slate Quarry is another quarry busily engaged in removing a large quantity of worthless rubbish which they received as a heirloom along with the quarry. It is generally supposed that when this has been effected the present active management will be able to turn the resources of the quarry into good account. The managing director of the company is Mr. Robinson.

The Braich Slate Quarry is situated upon the brow of the long hill lying upon the northernly side of the Nantlle Valley, and known as the Cilgwyn mountain. It consists of one large pit worked in three floors, in which the principal vein is the Faengoch, similar to that found in the Cilgwyn Quarry. In that portion of the quarry already opened the chief deficiency is in joints. The rock is one great solid mass, requiring a very considerable amount of labour to break up. But there is a "slant" running through the quarry at a certain depth, below which the nature of the slate rock is altered for the better. The agent is Mr. R. P. Williams, and the owners a private company.

The Pen-yr-Osedd Quarry is an undertaking of considerable importance. Under the superintendence of Mr. Darbishire, of Nantlle, the managing directors have opened a new pit upon the property, which has been found to produce slates of a much superior character to those in the old undertaking. The iron quarry is situated upon the eastern extremity of the vein. It has suffered considerably from the presence of water, but is now being worked with some energy. The Voel Quarry supplies slabs principally, and is in the immediate proximity of the last-mentioned quarries. The Alexandra Quarry is commencing operations upon the Red vein, after having been for a long time engaged upon the construction of a tunnel through a thickness of greenstone. Gallyfyedw Quarry is situated at the bottom of the valley. It is an old work, and has already yielded a large quantity of good slates. Since then it has been flooded, but one of the pits has now been cleared, and is being worked. Mr. R. D. Williams, of Carnarvon, is the principal proprietor. Cloddfa'r Coed Quarry is another which has been obliged to succumb to the constant stream of water which poured into the quarry. Upon the southern side of the valley the principal quarries are Tan'rallt and Fronheulog Quarries, both of which produce good slates.

#### LLANFIIANGEL-Y-PENNANT.

This is a valley running from the range of hills which shut the southern side of the Nantlle Vale towards the sea at Criccieth, on the shores of the Cardigan Bay. The slate vein crosses the valley obliquely, and is, or has been, worked on the hills on either side of it. Upon the westernly side, near the entrance to the valley, is the Hendre-ddu, or Prince Llewelyn Quarry. It is an old venture, lately re-opened by a private company, and under the management of Mr. Thomas Evans. The situation of the operations has been removed a little more to the eastward, where the vein appears more profitable. The fault with the old slate was the presence of ribs, which ran across the slate, the slate being liable to break in such places, and it is anticipated that the new trial will prove to be free from that fault. Further north is the Moelfa Quarry, standing upon the same vein, which, though not very extensive, is being worked spiritedly. At the head of the valley is a small quarry called the Pennant Vale, or Dolgarth Quarry. At the easternly side of the entrance is Isallt Quarry, once carried on very flourishingly, but since for many years idle. At the head of the valley, and upon the easternly side, is the Prince of Wales Quarry, owned by a limited liability company, of whom Mr. Thomas Harvey is the general manager, and Mr. John Roberts, the superintendent. The quarry is situated upon the side of the hill, and comprises seven galleries. There are two shades of slate in the quarry, both being grey blue of more or less intensity. The veins are upwards of 200 yards wide, and bounded by greenstone on either side. Near the entrance to the Pennant Valley, a little more easterly, and at the foot of a high mountain,







## Original Correspondence.

## MINERS' PAY—THE FIVE WEEKS SYSTEM.

MR.—Perhaps I may be excused asking the question, being totally ignorant of the nature of the difficulty or the value of the remedy proposed on the subject of the calendar monthly pay of thirteen lunar months, does it not seem to you that there should be any difficulty in the matter of adopting that which is more to be desired? If, as one of your correspondents says, miners are men of sense, and I do not doubt it—it ought to be quite sufficient to show them wherein evil consists to effectually eradicate it. Do the men properly understand that they are not to be losers by the change, and that it is merely a question of convenience, and not of profit to their employers, which may mean something to them, and that they suppose that it is an application of the "screw"? Now, on this point I believe the whole matter revolves. Let us have some authoritative declaration on this point. Let some of our large mining companies give us their views. I presume we have had something of the shareholders' ideas, and they are confined to the study of the accounts, &c., that it is a great pity that the calendar monthly pay was ever changed, and there does not appear to be any hitherto that has controverted that idea. So far the matter seems to be entirely in the hands of the abolitionists, and I must say from a cursory glance at the position they certainly seem to have the best of the argument.

ONLY WHO TAKES A DEEP INTEREST IN MINES.

## RICHMOND MINING COMPANY.

MR.—Your correspondent "Observer" takes a very ingenious method of attacking the Richmond by coupling it with others that have no features in common with it. There is no doubt that the theory that the Richmond is a lode is and will be repeated ad nauseam, as "Observer" states, to those who cannot stomach the fact, owing to a preconceived aversion, due possibly to some interested operations. The immense success during the past year of many of the leading American mines is passed over in silence, and because certain properties brought to this country have collapsed, it is inferred that all must do the same, and the cool assertion is made that "All estimates are illusory, and all reports unreliable." "All men are liars." It is a pity that "Observer" does not favour us with his name, that we might see the pinnacle of perfection he must stand on to entitle him to pass such a verdict. There are generally two modes of attacking companies—when they go wrong genuine shareholders make the charges; when the business is prosperous the attack comes from outside parties, who assume a benevolent regard for those they desire to relieve of their shares. It is enough to say, and forthwith he goes to work. The Richmond is a lode, and the shareholders will do wisely to learn by heart just now the Russian fable—"A powerful bear, a representative of a hungry lot, seeing a young animal sauntering along, whose exceeding vigour rendered an open attack a young, feigned sleep till the right moment, and then, with a startling voice roared out—there is a lion behind you, at which the affrighted victim rushed for protection into the very arms of the grim bear, who by one great squeeze thus obtained sufficient stock to supply the urgent wants of his voracious family."

A BONA FIDE SHAREHOLDER.

[For remainder of Original Correspondence see this day's Supplement.]

## MINING NOTABILIA.

[EXTRACTS FROM OUR MINING CORRESPONDENCE.]

**NEW ROSARIO (Mexico).**—By the French packet recently arrived intelligence has been received that the Providencia Mine, belonging to this company, is still further improving, and that the San Juan level, in the Rosario Mine, is yielding good ore, of which they had weighed into the store in the current week 1800 lbs., averaging 12½ per ton. This has been obtained only in driving to the open ground for more extensive workings, as soon as the new reduction-works, erected at Real del Monte by the Americans, are finished, when ores will be obtained in very much larger quantities, by stopping the large range of lode already laid open in the levels that have been driven. These new reduction-works, it is confidently stated, will be ready to start during the present month. The universal opinion in Real del Monte is that the Providencia Mine, belonging to this company, is, and will prove to be, the richest silver mine in Mexico, and the existence of this opinion is confirmed by the fact that all the Mexican shares have been bought up by local residents, who have the means of knowing what the mines really are, and who hold these shares firmly, knowing that they must ere long be receiving large dividends.

**CHAPEL HOUSE COLLIERY.**—The works at this property are being carried on with the usual energy, the output being a little over 7000 tons per month. We understand that a dividend at the rate of 15 per cent. per annum will be declared for the past quarter, and that there will be a balance carried forward sufficient to pay another dividend at the same rate.

**PERRAN CONSOLS.**—We are glad to learn, on the best authority, that the great improvement in this mine continues. The lode in the 40 ft. level, east of flat-roof shaft, is fully 500 ft. per fathom in the bottom of the level, and averages 25 to 30½ per fathom, which will greatly increase the returns. The mine has been recently inspected for one of the principal shareholders by an experienced agent, sent by himself, and who, in his report, says—"I never saw a more promising mine in Cornwall, and I have no doubt but what it will shortly become a dividend-paying mine; and, according to its present prospects, it will not take much outlay to bring it into that state."

## FOREIGN MINES.

**RICHMOND CONSOLIDATED.**—Cablegram from the mine at Eureka, Nevada: "Hall, London.—Week's run \$19,000, one furnace."

**BERNHARDT AND AURORE.**—The directors have received advice from Capt. Drake, dated Jan. 28, reporting that ore has been struck in the Central Adit, and also that ore continues in the Ridsdale Adit.

**MINERAL HILL (Silver).**—Mr. Oakes, Jan. 26: We have raised during the week 40 tons of ore of an average grade of \$50 per ton. The surface shaft having been sunk to a depth of 120 ft. without finding any mineral, the work has been stopped, and the two men put on the south drift in the Taylor tunnel, where the ground is very hard. We have now four men exploring north and south in the tunnel, and I hope we shall be in a position to keep them steadily at the work some time.

**COLORADO TERRIBLE LODGE.**—Jan. 27: Weather splendid.—In the 60 ft. level of the mine: The general appearance of the mine is very satisfactory. The ore is all now in good mineral, some parts exceedingly rich. To day we made a haul from samples taken from No. 1 stop, which gave 2855 ozs. of silver per ton. We have now about 10,000 lbs. of first-class towards the 30th shipment. The mine will produce largely of first-class ore, so I hope early next month to be able to deliver the full shipment of 11 tons American. The fifth level of the mine is much split up by the appearance of the rock; we fully expect a few feet more will bring us into solid ore. No. 1 stop is splendid ore all through, some very rich, in places 7 in. wide. No. 4 stop also in good ore, and will make some ordinary good first class; the vein has formed into a solid body from 4 to 6 in. wide.

**JAVALI.**—The directors have received advice from their manager dated Jan. 6.—20 stamps had worked 15 days, crushing 1020 tons of quartz, yielding 26 ozs. of gold, being an average of 9½ dwts. per ton. Expenditure (including 2000 lbs. for machinery), \$3805.34. Realizables (including 2000 lbs. for machinery), \$344.66. The steam-engine will be completed by the end of January, and ready for work as early as the dry season sets in. The revolution is at an end.

**NEW PACIFIC.**—J. D. Pringle, Jan. 25: I finished work on the shaft three days ago, and commenced hoisting water yesterday. I have leased ground with the 300 ft. level. Work will be pushed forward both night and day in the tunnel below the 400 ft. level (North Star ledge) as soon as the mine is freed from water.

**CEBAR CREEK.**—T. B. Ludlum, Jan. 30: Since my last, on the 17th inst., we have had a very severe storm of wind, rain, and snow, at times the wind blowing so hard that but little could be accomplished at hydraulic mining. I have, however, been able to keep the various claims washing most of the time. The Gem and Central have been running steady, the Home Ticket and Gold Run most of the time. In the Jehosaphat we are still sinking, or, rather, piling down a pit. It will probably be two or three weeks before we are down to grade of the level and have a face cleared, so as to call the claim fairly opened on this level; meantime, we cannot expect large returns. I am prospecting the gravel as usual, and thus far am well pleased; it is rich. The drilling machinery is all in the best manner, and we will try it next Monday (Feb. 2), and, if all works well, will crowd it day and night till we pass the Yankee shaft, as I am exceedingly anxious to commence washing on the Yankee claim.

**REQUER (Gold and Silver).**—Lewis Chalmers, Jan. 24: You will be glad to hear that the lode in the north drift is 6 ft. wide—4 ft. of it very rich quartz, 1 ft. of the 4 ft. very good ore, and 2 ft. of a softer quartz substance, which is highly mineralized. The ore stream on the hanging wall. We shall soon see a rich bonanza if mining indications be worth anything at all. The drift is in a rich lode. I will soon have some fine stopping ground.—Engine Shaft: The soft water, nevertheless, we are down 16 ft. from the 100, and the water fast descends the then pushing things as fast as they possibly can. The road to the mine, so as to get down all the ore I have out to make one run of it.

**I. L. (Gold and Silver).**—L. Chalmers, Jan. 24: Since last report the quartz carrying metal has increased to 4 ft. in width, but is considerably split and of wakening out as we get under the mountain. To-day some fine stones were picked up full of ruby. The south drift is just touching the Ophir casing, but not reaching it through it I cannot say what we are to have in the Ophir lode.

**MALABAR GOLD WASHING.**—Mr. N. S. Welton, Dec. 19: On the 19th I reached Malabar in company with Mr. May, and I employed the following days in making a complete examination of the works. In progress, a whole embankment of the proposed works for opening the mines, &c.—Upper Ditch: The excavation of this has been completed, and the greater portion of the filling stake had been laid, and the greater portion of the ditch, and the head of the ditch, &c., where it takes water from the Medina river; will be no further expense for a dam. The ground along the whole length of the ditch is of good quality, as a river there is a few hundred feet of good soil near the Medina river. The work of making the upper ditch has been carried out in the best manner, the grade having been preserved throughout, the ditch of several fathoms instead of bridging over them; this makes the actual ditch much longer than the road, but less flume will be required.—Lower Ditch: This is in perfect working order, and when cleared of some slides of earth, being mostly gravel, is much more liable to slides than that upon which

the upper ditch is constructed, but it is not worse ground than that at Malpasso, and as the grade of the ditch is small breakages will not, I anticipate, be frequent. Mr. May estimated the average amount of excavation per fathom on the Malabar ditches to be at least ten times as great as the average excavation on the Rica ditch, and no better proof of the economy exercised by Mr. O'Reilly and Mr. Anderson in this work could be required. Mr. O'Reilly in his report dated Oct. 19, and in his other reports since then, has gone into the details of the work in execution so fully that I have nothing further to add.—Outlet and proposed plan of opening Mine: The whole of the face of the hill on which it is proposed to commence operations having been cleared, it is now quite evident that no better point could have been selected for this purpose.—Scale of Works: Malabar, when ready to go to work, will have been mounted on a scale fully ten times as large as that at Malpasso, and the economy of this being done at the commencement will be, I am convinced, satisfactorily proved.—Sluice: From 500 to 600 feet of this 5 feet and 2 feet will be required. As long as we have passed through small leaders and a vein about 2 ft. wide, but I think the main lode is still further to the south.—San Domingo: The lode in No. 3 level east is at present small and poor. I have put up a rise to No. 2, where it is larger, and shows better for gold. In the west end the stopes are at present worth about 4 dwts. per ton.—San Benito East: The ground continues very hard, and we have been only able to extend the cross-cut 19 ft.; we have passed through some small veins, and I think we shall strike the lode in a few more feet.—Estrella Tramway: The contractor has been unable to obtain men to complete the work, and I have taken it out of his hands; the rails and sleepers are laid, the Estrella water-wheel, and the cost to complete the whole will be trifling.

**CHONTALES.**—The directors have received advice from Mr. Smedley, dated Jan. 5.—Ore crushed during December, 1410 tons, which produced 352 ozs. of gold, average 5 dwts. per ton value 9800, leaving a net profit of 3890. The above cost includes 39½ charged to construction account. Mr. Smedley reports that owing to the scarcity of labour, through the threatening war with Costa Rica, he had been unable to keep the mill fully supplied with quartz, but the cause of the dispute was amicably settled, and, no doubt, labourers would soon again become more plentiful.—San Sebastian: On account of the scarcity of men we have not been able to do anything in No. 3 level. In No. 2 we have driven 25 ft.; the lode is at present 4 ft. wide, and will average upwards of 5 dwts. per ton. In No. 1 we have driven 28 feet, where the lode is about 4 ft. 6 in. wide, and worth about 4½ dwts. per ton. The cross-cut to intersect the south lode (that worked by the natives) has been driven through several small leaders and a vein about 2 ft. wide, but I think the main lode is still further to the south.—San Domingo: The lode in No. 3 level east is at present small and poor. I have put up a rise to No. 2, where it is larger, and shows better for gold. In the west end the stopes are at present worth about 4 dwts. per ton.—San Benito East: The ground continues very hard, and we have been only able to extend the cross-cut 19 ft.; we have passed through some small veins, and I think we shall strike the lode in a few more feet.—Estrella Tramway: The contractor has been unable to obtain men to complete the work, and I have taken it out of his hands; the rails and sleepers are laid, the Estrella water-wheel, and the cost to complete the whole will be trifling.

**Machinery.** The heavy spurs and wheels in connection with the water-wheel have been placed in position, and are working well; they are very fine castings. The intermediate shaft and spur-wheels, for connecting the engine with the battery, are also in position. The new engine is almost completed, and I expect to have the steam up to-morrow for a trial. We shall, therefore, be as well prepared as possible for the ensuing dry season. I believe the war, or cause of dispute, is settled for the present, but it will take some time before labour settles in its usual course.—Pavon: I am fully aware of the great importance attached to the arrangement of machinery and proper opening of a mine at first, and how much the ultimate success depends upon this work being properly done; a mistake there is a continual one. As long as the mine is in existence Pavon shall have my best attention.

**NEW ROSARIO (Mexico).**—J. Skewis, Jan. 13: Providencia: This mine continues to look well, especially the San Manuel level, which is greatly improving every day, and I am, especially for something good, were very quickly. We have commenced putting up the new mill to day, and I hope to have it finished in about a fortnight.—Rosario: The San Juan level in this mine is looking much better, and some very good ore is now being taken out from this end. We have weighed into the store last week 1500 lbs. of metal that will average 12 marks per month, or 12½ per ton.

**NEW ZEALAND KAPANGA (Gold).**—J. Thomas, Dec. 11: During the past month the various surface works have progressed steadily. The most important work has been adjusting the cylinders and bearings in their true and definite positions, which have been finished for some days past. These connections being long to the machinery require time and much attention to have them properly adjusted. The carpenters have been and are busily engaged weatherboarding the buildings, first floor, and other work in the engine-house, with various work attending the machinery. The smiths have as much work as they can do to keep pace with supplying their forge-work to the engineers. The sawyers are also well employed felling trees in the bush and fitching same into convenient sizes for our circular saw. The riveted sheet-iron smoke stack is in readiness for fixing in position as soon as the carpenters have finished the engine-house. I hope we shall be able to build in and set the boilers in the course of a few days. The pitwork is also well advanced, the timber for balance-bob, 18 in. by 18 in., main-rod, 12 in. by 12 in., and flat-rods, 8 in. by 8 in. square, being cut to size. I have also the principal portion of the woodwork for erecting the first 25 feet of the cramps out in the bush, and the engine and pitwork. I immediately the engine and pitwork go to work, and the sinking of the shaft is resumed, I will devote my whole attention towards the speedy erection of the first battery of 25 stamps to commence with. The principal works now remain to be finished are the boilers to build in position, and the balance-bob, flat rods, and pitwork to put together, drop, and fix in the shaft, all of which will be accomplished as fast as it can possibly be done. I should estimate that from the present forward position of the works we shall be enabled to get up steam and get permanently to work in six or eight weeks from this date.

**MINZENBERG.**—R. K. Roskilly, Feb. 14: Dickins's Engine-Shaft: We have fixed the bearings and pistons, and also made every necessary preparation for the fixing of the plunger-lift. We shall commence on Monday to draw up the present bucket-lift, and as soon as the whole of it is at surface we shall send down and fix plunger-lift, which will be pushed on with all dispatch, and every exertion brought to bear upon this important work, so that no time shall be lost in completing the same and setting it in order. We have stocked the plunger pole, and good progress has been made in making the required ironwork for the lift. All other work is being pushed on with energy.

**BENSBERG.**—C. Craze, Feb. 14: Victoria Shaft: In clearing up this shaft, to prepare for sinking below the 10, we found we could not sink without having a new cylinder to receive the large quantity of water coming from the level. We are making it as fast as possible, and hope to get it on Thursday next, when we shall begin to sink without delay. The 10 cross-cut is now driven 45 ft. south of shaft, and I am pleased to say that the end presents a better appearance to day than I have seen before. The 10 cross-cut of the 10, east of this level, is driven about 9 ft.; there is a little lead in it, but not enough to value.—New Shaft: The part of the lode being carried in this shaft is looking well, and is worth (9 ft. long) 500 ft. per fathom, with more lode standing north and south. The level in west end of open-east is now driven in all 8 fathoms; we have driven 3 fathoms of this in the last fortnight; the lode in the present end is a very pretty one, having in it good stones of lead, and it presents the appearance of the top of a good lode. The level in east end of open-east is driven about 9 ft., and is producing iron and a little lead. We have commenced to open a new stop in the bottom of open-east, from which we expect a greater quantity of ore for dressing, and are laying bare the carbide of iron, and as soon as the whole of it is at surface we shall send down and fix plunger-lift, which will be pushed on with all dispatch, and every exertion brought to bear upon this important work, so that no time shall be lost in completing the same and setting it in order. We have stocked the plunger pole, and good progress has been made in making the required ironwork for the lift. All other work is being pushed on with energy.

**LUSITANIA.**—Feb. 10: Palhal: The lode in Taylor's engine-shaft is from 10 to 12 ft. wide, of white quartz. The cutting of the trip-lift at the 170 is completed, and the lode is now being carried in the new shaft. In the 170, the lode is 3 ft. wide, composed of quartz and small stones of ore.—Levels on Bisto's Lode: At the 170, west of Taylor's shaft, the lode is 4 ft. wide, composed of quartz and country. At the 160 west the lode is producing 1½ ton of good ore per fathom. The lode in the 150 east is 4 ft. wide, composed of quartz and stones with cobalt in them. In the 150 west the lode is worth 1 ton per fathom. In the 140 west the lode is 8 in. wide, composed of quartz and country, with spots of ore. Nothing will be done in the 140, east of River shaft, this month, as the men are assisting about the trip-lift, &c., in River shaft. In the 130, east of River shaft, the lode is 4 ft. wide, composed of quartz and stones of ore. In the 120 east the lode is 1 ft. wide, of flooken and a little quartz. In the 110 east the lode is 2 ft. wide, composed of schist and a little quartz. In the 90 east the lode is small and unproductive. In the 80 east the lode is 2 ft. wide, composed of schist and a little quartz. In the 70 east the lode is 1½ ft. wide, composed of quartz, spotted with lead and cobalt, worth ½ ton of mineral per fathom. The lode in the 70, west of Taylor's and west of slide lode, is 6 in. wide, composed of a dry flooken. The branch in the 30, west of Perez shaft and west of slide lode, is worth ½ ton of ore per fathom. The 130, on the slide lode, north-east of Taylor's, is becoming a little damper; the lode is 1 ft. wide, composed of flooken and schist. In the cross-cut, south of branch, west of Perez shaft, the ground is somewhat improved.

**Carvalho:** The great lode in the 50, east of incline shaft, is 1½ to 2 ft. wide, composed of quartz, with spots of lead. The copper lode in the deep adit, west of River Calma, is 8 in. to 1 ft. wide, containing quartz and muncie; this end is suspended. The valley lode in top adit, driving south-east of River Calma, is 4 in. wide, with a good underwall containing spots of lead. The canter lode in the 20, east of incline shaft, is 1 ft. wide, containing good stones of lead, and also stones of copper ore. In the winze on the great lode, below the 40, east of incline shaft, the lode is 3 ft. wide, composed of quartz and stones of lead.

**WEST CANADA.**—Jan. 21: Huron Copper Bay: The stopes in back of the 50, west of Palmer's shaft, will yield 4 tons of copper ore per fathom. In the bottom of this level, east of Palmer's, there is a stopes yielding 3 tons per fathom, and in the bottom of the 35 ft. level, east of Bray's shaft, a stopes yielding 3 tons per fathom.

**ALAMILLOS.**—Feb. 11: The lode in the 60, west of San Rafael shaft, continues strong and regular, with good stones of ore. In the 50, west of San Francisco shaft, the lode is large, with good stones of ore, yielding ½ ton of ore per fathom. The 50, east of La Magdalena shaft, is holed to an air shaft, east of which the lode is a little more open and promising. The lode in the 85, east of Taylor's engine-shaft, is a little easier for driving, but does not contain any ore. The lode in the 85, west of Taylor's engine-shaft, is a strong one, consisting chiefly of calcareous spar and stones of ore. In the 50, east of San Victor shaft, a powerful cross-course has disarranged the lode. The 50, west of San Victor shaft, is in the main slide; the lode in the bottom of the level contains fine lumps of ore. The lode in the 30, west of San Carlos shaft, is small and of no value. The lode in the 20, west of Addis's cross-cut, is compact and regular and is opening valuable ore ground, yielding 1½ ton of ore per fathom. There is a good lode in the bottom part of the 50, east of Judd's shaft, yielding ½ ton of ore per fathom. In the 60, east of Judd's shaft, the ground is hard for driving and the lode small and poor. The 40, east of Air shaft, continues unproductive. The 30, east of Air shaft, is again improving, yielding ½ ton of ore per fathom. The lode in the 50, east of Crosby's shaft, is very irregular; the ground is moderately easy for driving. The 50, west of Crosby's cross-cut, is getting a little smaller than it was, yielding ½ ton of ore per fathom. The lode in the 30, east of Swadfield's shaft, is small and poor. The men are getting on very well with the sinking of San Carlos shaft below the 30, notwithstanding the increase of water. In Judd's engine-shaft, sinking below the 75, the ground is very hard for sinking. The lode in Caro's winze below the 75 is quite unproductive. In Alvarez's winze, sinking below the 75, the lode is large and strong, with good stones of ore. Fernando below the 20 is going down in a very rich lode, yielding 3 tons of ore per fathom. The average rate of returns was maintained in the past month, and the tribute department is still yielding moderately. The operations at surface are

being carried on with their usual regularity, and the machinery throughout the mine is working well. We estimate the raisings for February at 235 tons.

**FORTUNA.**—Feb. 11: Canada Inco: In the 110, driving west of Henty's shaft, the ground is hard for driving, and the lode small and of little value. In the 100, driving west of Judd's shaft, there is a little lead in the bottom of the end, but not enough to give a value to the whole. We have not yet reached any other part of the lode in the 80, south of Henty's shaft. The lode in the 80, west of Kennedy's shaft, is regular, and contains good stones of ore. In the 90, west of Lowndes's shaft, the lode is small and irregular. The lode in the 90, east of Lowndes's shaft, has much improved, and is now opening valuable ground, yielding 1½ ton of ore per fathom. In the 80, east of Caro's shaft, the lode is much disarranged, and split into branches.—Winzes: In Belmont's winze, sinking below the 70, the ground is hard, and the lode small, and split into branches.—Los Salidos: The lode in the 110, west of San Carlos shaft, is strong, and of a promising appearance, yielding 2 tons of ore per fathom. In the 90, west of San Carlos shaft, the ground is hard for driving, and the lode small and unproductive. The lode in the 120, east of Morris's engine-shaft, is wide and open, and yields good stones of ore. In the 110, east of Cox's shaft, the lode appears to be disarranged at present. The 100, east of San Miguel shaft, is still opening valuable tribute ground, yielding 2 tons of ore per fathom. The lode in the 35, west of Palgrave's shaft, is divided into two branches, the northern one bearing a good leader of ore, yielding 2 tons of ore per fathom. The 45, west of Palgrave's shaft, is opening valuable ore ground, yielding 2½ tons of ore per fathom. The lode in the 45, east of Palgrave's shaft, is disarranged by a strong joint crossing the end, producing 1 ton of ore per fathom. The 35, east of Palgrave's shaft, is suspended while the men sink a winze to the 45. The lode in the 25, east of Palgrave's shaft, is small and poor, and the ground hard for driving.—Shafts and Winzes: Swadfield's shaft, sinking below the 25, has reached the depth required for a 35 ft. level, and the men are put to drive east on the course of the lode; the lode producing 2 tons of ore per fathom. The lode in the Garridos winze, below the 110, is strong, and well spotted with lead, yielding 1 ton per fm. In Morato's winze, below the 90, the lode is compact, and improving in value, yielding 2 tons of ore per fathom. Tolida's winze, below the 100, is going down in a very fine shoot of ore, producing 3 tons of ore per fathom. The stopes yielded moderately in the past month, and are now without any alteration worthy of notice. All the surface works are going on very regularly, and the machinery in both mines is in good condition. We estimate the raisings for February at 350 tons.

**LINARES.**—Feb. 11: Pozo Ancho Mine: The lode in the 85, west of Crosby's shaft, continues very regular, and yields good stones of ore. The 85, south of Crosby's shaft, is being put out to intersect the south lode. In the 75, west of Crosby's shaft, there is a strong and regular lode, but it does not contain enough lead to value at present. The lode in the 75, west of San Francisco shaft, is very compact and regular, and is opening a good length of valuable ore ground, yielding 1½ ton of ore per fathom. In the 75, east of San Francisco shaft, the ground is hard, and the lode small, yielding ½ ton of ore per fathom. The lode in the 65, west of San Francisco shaft, is unproductive at present. In the 55, west of San Francisco shaft, the lode has improved a little, yielding ½ ton of ore per fathom. The 55, east of San Francisco shaft, is opening profitable ground, and the lode has a promising appearance, yielding 1 ton of ore per fathom.—Shafts and Winzes: The men are getting on a little better with the sinking of Warner's engine-shaft below the 85 in the present month. No. 187 winze, below the 55, is going down in a good shoot of ore, yielding 1½ ton of ore per fathom. The stopes produced the estimated quantity of ore in the past month, and are now without any change worthy of notice. Our ordinary surface works are going on very regularly, and the machinery is in good working order. The raisings for February are valued at 125 tons.—Los Quintones: The lode in the 80, west of Taylor's engine-shaft, is very small, and of no value. In the 65, west of Taylor's engine-shaft, the lode is small, consisting chiefly of quartz and calcareous spar. The lode in the 55, west of Cox's shaft, is split into small and unproductive branches. A small branch has been met with in the 45, west of Cox's shaft. In the 80, east of Taylor's engine-shaft, there is a small vein carrying a few spots of ore. There is no improvement in the 65, east of Taylor's engine-shaft. The lode in the 55, east of Addis's shaft, is large and strong, but does not produce enough lead to value. The 55, west of San Carlos shaft, is opening a good length of valuable ore ground, yielding 1½ ton of ore per fathom. The lode in the 65, west of San Carlos shaft, is very wide, open, and easy for driving, consisting of decomposed granite and boulders of ore, yielding 1 ton of lead ore per fathom. The lode in the 65, east of San Carlos shaft, has become poor. In the 55, east of San Carlos shaft, the lode is promising and productive, yielding 1½ ton of ore per fathom. The lode in the 45, east of Judd's shaft, is compact, and of a promising appearance, yielding 1 ton of ore per fathom. In the 32, east of Judd's shaft, the lode is rather small at present, producing ½ ton of ore per fathom.—Shafts and Winzes: The men are getting on with the sinking of Judd's shaft below the 45. At Addis's shaft, below the 55, the ground is very hard and difficult to sink through. Francisco winze, below the 55, is holed to the 65; the lode yielding 1 ton of ore per fathom. Julian's winze, below the 45, is holed to the 55; the lode is rather small at the point of communication, yielding ½ ton of ore per fathom. Asten's winze, below the 45, is situated east of Addis's shaft, and in advance of the 55; the lode yields 1 ton of ore per fathom. Pedro's winze, sinking below the 32, is a new winze, east of Henty's shaft.

**LANESTOSA.**—Feb. 6: In sinking Judd's shaft under adit the lode is more massive and improving in yield of lead, producing ¾ ton of lead ore and 1 ton of calamine per fathom. In driving adit level north of Judd's shaft the lode is very small, but the ground is good, and the lode will probably improve again shortly, now yielding ½ ton of lead ore and ½ ton of calamine per fathom. In driving adit level south of Judd's shaft it ought to have reached solid ground, but continues in loose debris, which shows that the cave dips south. The driving of Cave level south of Judd's shaft is suspended, being 25 ft. from shaft; the lode is 1½ ft. wide, containing ore, with calcareous shale, yielding ½ ton of lead ore, and ½ ton of calamine per fathom. The sinking of winze from end of Cave level is completed to level of adit lode; it is uniform throughout, but has increased in size at the bottom, yielding ¾ ton of lead ore and ¾ ton of calamine per fathom. The driving of adit level south of winze has been commenced to expedite the hoisting of adit for ventilation, the lode yielding ¾ ton of lead ore and ¾ ton of calamine per fm. In driving adit north from mouth side the ground was hard and troublesome until the last few days, when it improved, and began to yield occasional stones of lead. In stopping No. 1, back of Cave level south, the working is now entirely confined to the eastern branch, which continues to yield well, producing 1½ ton of lead ore and 2 tons of calamine per fathom. I estimate the yield for present month at 25 tons of lead and 40 tons calamine and mixed ores.

**NEW ZEALAND KAPANGA.**—The progress of the works on this company's mine has made great headway during the last three weeks: the huge framework of the engine-house has been erected, making the structure look like a giant looking imposing. All the massive work, which has cost so much time and money, will be entirely concealed from view, and few could imagine there was so much labour and material spent without watching its construction. The cylinder is now fixed in the house, on the top of the high massive foundation of stone, and the steam-pipes innumerable are being fast in their places. The other portion of the machinery, outside of the house also, is being fixed on enormous wooden frames, for holding up the winding appliances for pumping the water out of the engine shaft, for winding the stuff therefrom, and for washing purposes. The progress being made in this department of the company's extensive and expensive undertaking warrants the highest expectations of the next month, or early in February, everything will be in readiness for the recommencement of sinking operations, and the early and thorough development of the property. The manager has now completed a handsome residence on a portion of the mine, the situation of which will materially assist him in the superintending of the works, from its convenience. It is not improbable that the commencement of the year will notify the fact that some of the directors are on their way from the Mother Country to have a look at the shareholders' investment, and it will be a boon to them to have a residence to temporarily reside in, which will give the sojourners the comforts of a British home. The weather has been very favourable, but has not been lost sight of in the very busy rushing ahead of the workings, and we may reasonably expect that a few months will tell a very favourable tale as to the gold-producing qualities of the Kapanga reef and the driving creek generally.—Daily Southern Cross.

From Mr. ALFRED E. COOKE (76, Old Broad-street, E.C.):—The Mining Market is now in the same depressed and inactive state as it was in 1869, when the price of tin fell so considerably. The causes of the present depression can be explained by the very large arrivals of Australian tin, the great increase in the prices of coal, iron, and other materials, and the scarcity of labour, involving higher wages being paid to those employed. When these drawbacks are removed there is no reason to doubt that British mining will again revive to a prosperous condition. Already the imports of Australian tin are much less, and it is an undisputed fact that working Australian tin mines and importing the metal here will not pay. Besides this we find labourers returning home in large numbers, consequently labour will be cheaper. Seeing that so many new collieries are being brought forward and worked, it is far more probable that coals will rather be lower than higher. When we consider these various features, it must be admitted that there is much to encourage us in the hope that brighter times are in store for us. We are now in the midst of this great depression. Business is almost at a standstill, and prices of promising mines are very low. It is seldom that such an opportunity occurs for the investor or speculator. Now is the time to give attention to low-priced shares, which, if judiciously selected, may be purchased to advantage.

The mines principally dealt in of late have been Tankerville, Old Trebutger, Van Consols, and a few others, besides the American mines, against which I wrote so strongly in the Journal when they commanded such high prices. There has been a more active business doing in Tankerville shares. I recommend them to be bought at the present low price. No doubt many have been disappointed at the great decline in these shares, but this may be accounted for in many ways. I look upon Tankerville as having a great future, and the results will frustrate the attempts of many enemies to the mine, who endeavour to spread false reports, and depreciate the market value of the shares. Old Trebutger shares may be considered comparatively safe. The mine is opening out in a very satisfactory way, and a purchase is desirable.

Colliery shares are absorbing great interest, and there are many well worth attention. They are being steadily bought up by the public, who are well satisfied with this class of investment as being safe and remunerative. I shall be pleased to give advice to those who wish to purchase or sell colliery shares, or take advantage of the opportunity presented for selecting a few low-priced mine shares, thus reaping the benefit that is sure to accrue when the expected improvement in the metal market occurs. Next week I hope to give particulars of a very legitimate undertaking, and I advise an early application for shares. I will communicate direct with anyone who may wish for information, if they will apply to me.

The following mine was received too late for insertion in its proper place:—

**NORTH CROFTY.**—Joseph Vivian and Son, William Thomas, Feb. 19: In the 220, driving west of No. 2 winze, west of Petherick's shaft, the lode is 4 ft. wide, composed of spar, peach, muncie, and tin, and is worth for the latter about 100 per fathom. In the stopes west of No. 2 winze, in bottom of the 208, the lode is worth for tin and copper ore 150 per fathom. We have a very fine looking lode in No. 3 winze, sinking under the 208 west, where it is 7 ft. wide, composed of spar, peach, muncie, tin, and copper ore, and is worth 300 per fathom. In the 170 west the lode is 5 ft. wide, and is worth about 100 per fathom. The stopes throughout the mine continue to produce their usual quantities or tinstone.

**FORTESCUE TIN MINING COMPANY (Limited).**—A petition for winding up this company is to be heard before the Vice-Warden of the Stannaries on the 28th inst.



## BRITISH MINES.



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the circumference or sides of the vessel above the float. It is essential, however, that the holes or openings just alluded to shall be larger in area than the area of the pipes by which the gas or air is conveyed into or delivered from the carburetor.

**UNITED BITUMINOUS COLLIERIES.**—These shares have been in great demand during the week, owing to the excellent reports from the Weig Colliery. The coal is of first-rate quality, and when the new pit is finished the company will be in a position to make daily output of 150 tons from this colliery alone. Most encouraging reports also come to hand respecting the fire-brick department. A ready sale is obtained for all that can be produced at very remunerative prices. It is estimated that when the new kiln is finished 200,000 bricks per month can be turned out to sell at a profit of about 30s. per 1000. This alone will yield a dividend of 15 per cent. upon the capital issued. It is expected that the company will eventually pay 40 per cent. per annum.

**WEST ESKDALE L.P.**—The frost having disappeared and more congenial weather set in, the works have been proceeding in full force during the past week. At the Eastern Mine the men are busily employed sinking the shaft below the 24, in order to get under the course of ore gone down in the bottom of that level, and valued at 4 tons of lead ore or 600. per fathom. There is every probability that they will complete their bargain in the specified time. The shaft is going down by the side of the lode, but carrying the hanging wall on its north side. A few days back a hole was fired in this wall, and some of the finest stones of lead ever seen in the mine were taken out. This is conclusive evidence that the ore is holding down. A practical and cautious gentleman lately expressed the belief that at this part of the mine they were about to open up the richest and largest course of lead ore that has been seen in Cardiganshire for many years; only a short time is now required to verify this assertion. The machinery is in all good working order. At the Western Mine the upper dressing floor is approaching completion, when the returns will be greatly increased. Clearing ore for market at the lower floor is necessarily impeded whilst this work is in progress; nevertheless, 50 tons have been sent to the smelters this week. They have now a sufficient quantity of orestuff broken from the lode to supply the crusher for at least four months to come. Stopping has accordingly been discontinued, and the monthly expenditure will thereby be greatly reduced without lessening the returns. The lode at this part is from 30 to 40 ft. wide, carrying ore throughout. The quantity of reserves is, therefore, practically inexhaustible. All the machinery is in good order and working well. The dressing floors are laid out all with the latest improved appliances for rendering ore marketable at a minimum of cost. The water power is great, and equal to double what is required.

The RIO TINTO COMPANY have received a trial shipment of ore, which has been purchased by a leading firm of smelters in Swansea. Notwithstanding that this ore has been brought down by the present imperfect and expensive means of communication, it leaves a very favourable result to the company.

\* With this week's Journal a SUPPLEMENTAL SHEET is given, which contains: Dr. Percy's Lectures on "Metals" at the Royal School of Mines—Mining in Australia—Foreign Mining and Metallurgy—Diamonds and Gold in South Africa—Society for the Promotion of Scientific Industry—Explorers, Miners, and Metallurgists' Company—Meetings of the Mammoth Copperopolis, English and Australian, Ohio, Old Treburget, East Nant-y-Mwyn, Bog, Botallack, Bedford Consols, North Roskear, Roscawell Downs, South Wheel Croft, Littledean Woodside Coal, Mwyndy Iron Ore, and Mold Argued Colliery Companies, &c.—Original Correspondence: Mineral Wealth of Queensland; Thames Gold Field, New Zealand (G. F. Hosking); Mining in New South Wales (E. Mount Biscoff); Tin Mines, Tasmania (J. Hunt); Emma Mine; Utah Silver Lead Company (J. P. Sewell, T. Bennett); Richmond Consolidated Mining Company (J. Elliott); Flaxstaff Mining Company (W. Maitland); Notes on a Journey in India in 1861 (J. Harrison); Barrenness of Soda Company at Yquique and Lima (J. B. Leigh); Desulphurising and Chloridising Silver Ores (J. S. Phillips); Cornish Tin Mining; Miners' Conversations—"Agent" and "John" (N. Ennor); N. Ennor on America and its Mining; Mexico and its Mines (R. Tredinnick); Royalty of Cornish Mines (R. Tredinnick); Observations on Mining (R. Knapp); Mine Payments—Lunar or Calendar Months; South Condurow; Halkin Mountain—The South Prince Patrick Mine; Mangold Head Mining Company; Gunnis Lake (Clitters) Mine; Bensberg Lead Mining and Smelting Company (F. Williams), &c.

## The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, FEB. 20, 1874.

COPPER.				IRON.			
Best selected...	£	s.	d.	per ton	£	s.	d.
Tough cake and tile...	88	0	0	Bara Welsh, in London...	12	0	0
Sheeting & sheets...	94	0	0	Do., to arrive...	11	0	11
Boils...	96	0	0	Nail rods...	12	5	0
Bottoms...	97	0	0	Staff, in London...	12	0	0
Old...	85	0	0	Bars, ditto...	12	0	0
Burra Burra...	87	0	0	Hoops, ditto...	14	0	0
Wire...	0	1	0	Bars, at works...	11	0	0
Tubes...	0	1	0	Hoops, ditto...	13	0	0
BRASS.				Sheet, single, & plates...	10	0	0
Sheets...	104	0	0	Pig No. 1, in Wales...	5	0	0
Wire...	104	0	0	Refined metal, ditto...	7	0	0
Tubes...	114	0	0	Bars, common, ditto...	10	0	0
Yellow metal sheeting...	84	0	0	Do., mch. Tynor Tees...	11	0	0
Sheets...	84	0	0	Do., railway, in Wales...	9	0	0
SPELTER.				Do., Swed. in London...	9	0	0
Foreign on the spot...	24	12	0	To arrive...	19	0	0
Do., to arrive...	24	12	0	Pig No. 1, in Clyde...	5	0	0
ZINC.				Do., f.o.b. Tynor Tees...	10	0	0
In sheets...	30	0	0	Do., Nos. 3, 4, f.o.b. do.	5	0	0
QUICKSILVER (p. bot.)...	19	0	0	Railway chairs...	5	0	0
TIN.				spikes...	12	0	0
English blocks...	2110	0	0	Indian Charcoal Pigs...	10	0	0
Do., bars (in brls.)...	111	0	0	Do., in London, p. ton...	10	0	0
Do., refined...	113	0	0	STEEL.			
Runa...	105	0	0	Swed., in kegs (rolled)...	20	0	0
Struts...	105	0	0	Ditto (hammered)...	20	0	0
TIN PLATES.				Ditto, in fagots...	21	0	0
10 Charcoal, 1st quality...	2	3	0	English, spring...	23	0	0
IX Do., 1st quality...	2	3	0	LEAD.			
IX Do., 2d quality...	1	15	0	English Pig, com...	22	0	0
IX Do., 3d quality...	2	1	0	Ditto, L.B.	23	0	0
IX Do., 4d quality...	2	1	0	Ditto, W.B.	24	0	0
IX Coke...	1	9	0	Ditto, sheet...	24	0	0
IX Ditto...	1	15	0	Ditto, red lead...	25	0	0
Canada plates, p. ton...	19	0	0	Ditto, white...	30	0	0
Ditto, at works...	18	0	0	Ditto, patent shot...	26	0	0

**REMARKS.**—The dullness in the Metal Trade, to which allusion has already been made, may have been intensified by various extraneous causes, such as the general election and the winter quarter of the year, during which business is usually circumscribed, but had there been an existing demand, with a probability of profitable returns, neither the elections nor the season of the year would have materially hindered the execution of such orders. The prevailing dullness is only to be accounted for by the slackness of demand, and this is not confined to the metal trade alone, but appears to permeate almost all commercial and manufacturing industries. The monetary position of America is far from satisfactory, and general distress is prevalent there, consequently limiting the demand from that quarter. In France likewise the heavy taxation, resulting from the large indemnity, is now being felt, and consequently trade is contracted in that country within very narrow limits; indeed, the financial difficulties of last year were more widely spread, and the effects thereof have been far deeper than were originally imagined, and once again the return to healthy activity of trade has been negatively by some untoward circumstance, leaving the markets, especially so on the Continent, in a state of depression worse than before. But for all this, so far as the metal trade is concerned, it would appear that, unless some unforeseen circumstance should prevent a return to prosperity may be expected before long. The price of coal and raw material is on the decrease, and it is probable that there may be a still further fall. Without doubt production has been materially lessened, but consumption has been going on, and stocks are consequently very generally reduced below the average of years. There are indications that the markets are in a sensitive condition, and lower prices would not only induce consumers to give out orders, but dealers would at the same time in all probability be disposed to take advantage of such an opportunity for the replenishment of their stocks. Notwithstanding the monetary crises and panic which have been endured elsewhere, the country escaped in the main, and is only experiencing the reflex influence, therefore the return to a condition of healthy activity will be less difficult at home than abroad.

**COPPER.**—Our market this week has presented a quiet and rather a gloomy appearance. The demand for all kinds and from all parts has been limited, and to effect sales sellers have been compelled to submit to some further concessions in price both for English and foreign, but buyers have not been induced to purchase more than is wanted for immediate requirements, and for which they have no inducement. The tendency of the market at the present time is apparently downwards, and before any large amount of business is likely to be transacted it will, in all probability, be found necessary to accept some material reduction in quotations. The stocks of copper in England are, undoubtedly, kept up far beyond all probable requirements. During the past year, in which the consumption of copper exceeded rather more than the average of previous years, did not affect the stock to a greater extent than about 3000 to 4000 tons of Chilli bars, and the quantity always available remained rather over 20,000 tons. Now, if the future supplies are likely to be equal to those of recent years, and there is no particular reason to suppose that there will be any considerable falling off, then the present stock is perfectly unnecessary to be maintained at anything like existing figures. It would seem that under these circumstances when the demand is not likely to affect the stock to a greater extent than to 3000 or 4000 tons that double that quantity (about 8000 tons or so) would be ample, but to prevent any scarcity it might be extended (say) even to 10,000 or 12,000 tons. This being so, it is stock in England of Chilli bars is just about double to what is ever likely to be really wanted, and the only way in which these superfluous 10,000 tons will be to offer such an inducement in price to smelters and consumers as will make it worth their while to increase their holdings. On Saturday last g.o.b. realised 78. 10s. per ton cash; Wallaroo, 80. 0s. per ton; Burra, 85. 0s. per ton cash, and 85. 10s. per ton one month. On Monday the market opened a shade stronger, 79. 0s. per ton being paid for g.o.b. for 50 tons, and 200 tons reported 78. 10s.; Wallaroo 80. 0s. cash, and Burra 85. 0s.

three months. On Tuesday the same prices for Chilli were repeated, as were also those for Wallaroo. On Wednesday cash price for Chilli bars still remained at 78. 10s. to 79. 0s. one month, 79. 10s. three months; Burra, 85. 0s. On Thursday Chilli bars receded to 78. 10s., and 1200 tons regulus was sold at 15s. 6d.; Wallaroo, 80. 10s. to 80. 0s., the market closing very quiet. Business has been done to-day in Chilli bars at 78. 10s. for cash and prompt one month, and 77. 10s. for cash, closing sellers at this price. In yellow metal there is less firmness, and sellers are not unwilling to take orders at slightly lower rates.

**IRON.**—Up to the date of the receipts of the last report from South Wales, electroengineering business still continued to engross universal attention. This, however, is now over, and it is expected that masters and men will now turn from politics to business. The Merthyr boroughs are well represented in Parliament by Mr. Fothergill, who has a very important interest in both the coal and iron trades of South Wales. For some weeks past there has been but very little doing, and exports of iron from South Wales generally were small. From the North of England reports of lower prices of pig-iron have been received. No. 3 is quoted from 81s. to 82s. 6d., and it is believed lower prices would be accepted by second hands; No. 4 forged pig, 77s. 6d. In this district also business has been very much interrupted, and prices have shown some irregularity in consequence. Still, however, quotations, on the whole, are lower than they have ruled for nearly two years. This can only be accounted for by the existence of one predominating cause—that of diminished demand, and this diminished demand is again caused by the high prices for finished iron, which has driven a portion of the trade to foreign countries. There was a slight improvement in enquiry, and orders have been booked more readily during the past week or so; but still, a very considerable impetus must be given to the trade before an average amount of work can be supplied to the various firms now in operation. In the present state of the pig-iron market, of which the tendency is still towards lower prices, it is not to be expected that buyers of finished iron will be disposed to give out their orders for more than very limited quantities. Should the price of coal decline in a similar ratio to that of pig-iron, it may be possible at the same time to consolidate a rearrangement of the wages question; in that case manufacturers of finished iron will be in a position to accept contracts at lower quotations, still retaining for themselves a fair margin of profit. Up to date there is no material alteration in the price of merchant iron, but the expectation is that possibly somewhat lower rates will rule before long. With regard to Scotch and pig-iron the market has been very flat, and has fallen considerably in price. The prices of makers' iron, however, at the present time is nominal. At the opening of the week mixed numbers were sold at 96s., since which time prices have tended downward. On Tuesday sales were made as low as 92s. 6d., and on Wednesday prices as low as 91s. 9d. On Thursday still greater reduction was made, 88s. 6d. being taken, closing buyers 89s. 6d.

Week ending Feb. 15, 1873	Tons	8,050
Week ending Jan. 14, 1874	Tons	7,138
Decrease		912
Total decrease since Dec. 25, 1873		23,428

To-day prices of mixed numbers have fluctuated—89s. 6d. and 90s., and the market is still rather unsettled.

**LEAD.**—In respect to this metal the market has remained in a very unsettled state, and the effect of the failures in this branch of business is to create greater want of confidence in the future stability of prices. Our quotations must be considered nominal, as a considerable amount of under selling is still going on, and until the stock thrown on the market in consequence of these bankrupt firms is cleared off there will be no dependence on quotations.

**SPELTER.**—This metal is again lower, and on Tuesday last Silesian changed hands at 24. 12s. 6d., both on the spot and for arrival; and on Thursday 24. 5s. was accepted for Silesian at outports; 160 tons of zinc were offered for public sale, 110 tons of which were sold at 29. 12s. 6d. down to 29. 7s. 6d.

**QUICKSILVER** is again dearer, 19. 10s. for bottle having been paid during the week for small quantities.

**TIN.**—There is no improvement to chronicle in this market, either as regards demand or prices. Consumers continue to buy sparingly, and only in such quantities as to cover sales of the manufactured article. The arrivals of Australian tin exhibit no falling off, and this naturally tends to weaken prices. There will be little or no chance of a recovery until it is known at what price the future supplies of Australian tin can come forward; and, unless some material reduction in shipments to this country takes place shortly, prices no doubt will continue to droop. The sales of all foreign tin at the present time are attended with very considerable loss, but the new source of supply has proved so unexpected that it has exceeded all expectations of the holders and importers of Straits and Banca tin.

**COPPER.**—(J. Pitcairn-Campbell, Liverpool).—Business transacted during the fortnight comprises about 1900 tons bars at 88s. down to 78. 10s. per ton; 54 tons Corocoro Barilla, at 17s. 7.5d.; 554 tons ore at Swansea at 15s. 6d., and 200 tons regulus, at 16s. per unit. Arrivals here during the fortnight of West Coast, S.A., produce—Sorata, from Valparaiso, 400 tons bars, 50 tons Barilla; Valparaiso, from Valparaiso, 310 tons bars, 85 tons ingots, 54 tons Barilla; Hampshire, from Carrizal, 778 tons regulus; San Fernando, from Carrizal, 550 tons regulus; Zeta, from Guayaquil, 50 tons ingots. At Swansea, Epsilom, from Chamaral, 815 tons regulus; Marquis of Worcester, from Pan de Azucar, 630 tons ores; Coronel, from Carrizal, 800 tons regulus. Stocks of copper (Chilian and Bolivian) in first and second hands, likely to be available, we estimate at—

Ores.	Regulus.	Bars.	Ingots.	Barilla.
Liverpool	1438	2028	15,125	150
Swansea	3227	5391	2,480	100
Total	4665	7419	17,605	250

Representing about 21,900 tons fine copper, against 24,900 tons Feb. 15, 1873; 12,800 tons Feb. 15, 1873; 21,400 tons Feb. 15, 1871.

**Messrs. James and Shakespeare.**—COPPER: Smelters have taken during the week about 1600 tons. Chilli regulus, at 15s. 9d. and 15s. 6d. per unit. Bars have receded, since we last wrote, about 20s. per ton, and a tolerably fair trade has been done in them, both for consumption and export. The bulk of the sales consisted of Lots and Urmeneta (which now pass under contracts for good ordinary brands), and in the majority of cases the purchasers were for prompt delivery, on cash terms. A few isolated lots of picked and best marks have changed hands at 2s. to 3s. per ton advance on the figures paid for common sorts. One or two transactions were reported in g.o.b. for forward delivery, but as a rule there is an entire absence of speculation in the article, and the buying is confined to consumers, who only take what they want for their immediate and pressing requirements. Australian sorts are completely neglected; holders, however, are not pressing sales, and quotations remain almost unaltered. Some small second-hand parcels have been reported in Burra and Wallaroo, at about 88s. cash for the former, and 89s. for the latter description. English is receding, in sympathy with other qualities, but manufacturers cover their sales (as soon as made) with a similar quantity of raw material, and apparently do not care to go out of stock at present values. In Tin all descriptions have been tolerably steady, the alteration, if any, being rather in an upward direction. A good trade is now passing in Australia, the quality of which is fully equal to that of other foreign, and as it is obtainable at a comparatively cheap price, consumers are willing to give the article a fair trial. At the ticketing on Tuesday, a good portion of the Australian ore was withdrawn; the quantity sold went as follows:—4½ tons, inferior and common, 25½ to 40s. per ton; 5½ tons, good to fine, 52½ to 64½. per ton. For the next sale, 3rd proximo, 316 tons of Australian, and 1 ton of Peruvian have been declared.

**Messrs. Vivian, Younger, and Bond.**—In COPPER there has been no further decline of importance in foreign descriptions during the week, and at 78. 10s. to 79. 10s. cash and with extra prompt, a fair quantity of Chilli bars have been sold, part to consumers here, and for export to the Continent. 400 tons of Chilian regulus sold in Liverpool at 15s. 9d. to smelters, and 1200 tons as we close at 15s. 6d. per unit. In Australian, sales of Wallaroo at 88. 10s. to 89s., Burra 87. for immediate cash, and 87. 10s. to 88s. usual terms, 89. 5s. being paid for three months' prompt. The demand for English is limited at 87. to 88s. for tough, and 88. to 90s. for best selected. Some Indian orders for 4 by 4 sheets have been booked at about 85s., and strong sheets 95s. Yellow metal in fair demand, at 84d. for sheeting. In Tin the market for foreign sorts has shown some reaction in price from the previous decline, Straits selling at from 108s. to 107s. 6d. cash, and 107s. to 108s. March-April delivery, a fair quantity changing hands. At the close holders asked 108s. for cash parcels: 5 tons Banca sold at 114s., and 10 tons Biliton at 108s.; Australian, 104s. to 106s. At the Ticketing, on Tuesday last, a portion of the Australian ores was withdrawn, about 70 tons selling at 52. 10s. to 64. 5s. for good fine, and 25. 5s. to 40s. inferior. English has ruled irregularly down to 108s. for ingots, but the English smelters are now asking 111s. for ingot and 114s. for refined. 316 tons of Australian ores will be offered at the next Ticketing, on the 3d proximo.

**Messrs. Henry Rogers, Sons, and Co.**—COPPER: The sales that have been made in the week have been but small, and the prices realised from 10s. to 20s. below last week's. English copper has given in response to Chilli, the demand being excessively light. In manufactured there is but little doing, and the demand for yellow metal is not so good as it has been. Tin: The value of this metal has increased about 2s. from its lowest. There is a better enquiry for all descriptions.

There is no particular change to report upon in the MINING SHARE MARKET since our last. Business continues dull and very restricted in amount, and we cannot expect any great change till there is some improvement in metals. On this point, therefore, it is some satisfaction to find that one of the largest tin smelters in Cornwall stated, at the Botallack meeting, that he hoped tin had reached its lowest price; and although we must not at once anticipate any considerable rise, the market might soon rally, and become much firmer in tone. We can only hope that the opinion of so great an authority may prove correct. Certain it is that old and expensive mines are stopping every day, owing to the low price of tin, and the production of that metal in Cornwall will soon be very small indeed, in comparison with former years; and then, although too late for many mines, the price must of necessity go up.

There have been a few transactions since our last in Tankerville, West Tankerville, Old Treburgett, Carn Brea, Prince of Wales, Penstruthal, Roman Gravels, East Lovell, South Condurow, and other mines. Old Treburgett have been rather extensively dealt in, and leave off ½ to 1½; at the meeting, full particulars of which will be found in another column, a dividend of 17½ per cent. per annum for six months was declared on the preference shares, and of 7½ per cent. on the ordinary shares. Tankerville are firm, at D to 9½; there is no

change at the mine. Roman Gravels, 15½ to 16½; the sampling this week is 230 tons of lead ore for the month; the mine continues to look well. West Tankerville, 2 to 2½; Pennerley, 1½ to 2½. East Basset, 8½ to 9½, call paid; a telegram, received from Cornwall this afternoon, states that the accounts presented at to-day's meeting showed a debit balance of 3273½; a call of 7½ per share was made, but the agent's report was favourable.

South Crofty, 26 to 27; at the quarterly meeting, held in Cornwall, the costs were 4892½; credits, tin 3477½, copper 1057½, arsenic 407½; total, 4941½; and after deducting dues and other charges there remained a debit on the quarter of 116½, and a balance against the adventurers of 507½. The agent reported that the returns for the quarter had fully realised their expectations, and had the prices of tin and copper kept up there would have been a considerable profit. Bog, 10s. to 15s. Carn Breas have declined to 40, 45. At North Roskear meeting the accounts showed a debit balance of 1323½, and an intimation was given by the pursuer that the largest shareholder had expressed his unwillingness to go on any further; a special meeting, therefore, is to be held at once to stop the mine. North Roskear was formerly rich for copper, and paid large dividends, but has latterly made large returns of tin at a heavy cost. Its stoppage must be matter for regret in Cornwall, and there is no saying at present what effect it will have on others in its immediate vicinity.

Botallacks are quoted in Cornwall 60 to 65, but the report at the meeting does not confirm the improvement in the mine reported in the county last week. The accounts for three months to end of December show costs, 8500½. The returns of tin to day of meeting were 5600½, leaving a loss of 2775½, and a call of 10s. per share was made, payable in two instalments. At Wheal Cock part of the mine the 100 south and the 90 are opening out paying ground, and further improvement is expected. It was also stated to the meeting that the lords have declined to reduce the dues, although Lord Falmouth had received as much as 30,000. from the shareholders. West Frances, 7½ to 8½; the tin sold and credited in the accounts at the meeting realised 3724½. 1s. 10d., and the increased returns have been chiefly raised from the 60, which has been opened upon for 80 fms. in length. A cross-cut is to be driven to intersect this at a deeper level, and the agents think there is every prospect of opening a large quantity of productive ground which can be easily and cheaply worked. Cook's Kitchen, 8 to 9; the tin sold here realised 3478½, and the costs charged to Nov. 22, leaving a debit balance of 1465½. 12s., and a call of 10s. per shares was made. The 306, east of engine-shaft, driving on the south part of the lode is worth 25s. per fathom. A winze sinking below this, on the north part of the lode, and 7 fms. before the end, is worth for 9 ft. long 90s. per fathom. Dolcoath, 44 to 46; East Lovell, 10 to 10½; Great Laxey, 12 to 13; Great Wheal Vor, 20s. to 30s.; Marke Valley, 15s. to 20s.; Penstruthal, 16s. to 18s.; Perkins Beach, 8 to 8½; Prince of Wales, 2s. 6d. to 5s.; Rookhope Valley, 15s. to 20s.

Wheal Crebor, 3½ to 4; the driving at the 120 is by the side of the lode. In the 108 east the lode has improved to 6 tons of copper ore per fathom; lode in back of 120 is worth 35s. to 40s. per fathom. The next sampling, we understand, will be from 150 to 200 tons. East Grenville, 2s. 6d. to 7s. 6d.; at the meeting the accounts showed a debit balance of 1398½. 5s. 10d., and a call of 5s. per share was made. The unpaid calls amounted to 1534½. 15s. The sales of ore were—Copper ore, 252½. 3s. 1d.; tin, 330½. 1s. 8d. The agents state that looking at the good runs of ore ground opening out at the 120 and 95 east they consider the prospects of the mine were never more encouraging than at present. They are especially pleased at the lode in the 120 west, and in about six weeks the shaft will be down to the 130, when driving will be commenced to get under the ore in the 120, and the value of the mine enhanced. And it would seem a matter of prudence for the present to confine operations to this point, and so reduce the cost to a minimum. Rosewall Hill and Ransom United, 8 to 8½; South Condurow, 4 to 4½; South Roman Gravels, 15s. to 20s.; Tincroft, 32 to 34.

Van Consols, 3½ to 3¾; the new winze sinking under the 15, east of Gundry's, in the course of ore recently discovered is improving, and now worth 4½ to 5 tons of lead per fathom. The stopes throughout the mine are yielding fair quantities of ore, and 50 tons of lead ore have been sampled for sale on the 28th inst.; Chiverton, 5½ to 5¾; Wheal Grenville, 4½ to 5; West Eskair Lye, 2½ to 3½; Glan Severn, 1 to 1½.

Rio Tinto, 5½ to 6; a trial shipment of ore has been received and sold to one of the leading Swansea smelters, and, although brought down from the mines by the present imperfect and expensive means of communication, it leaves a very favourable result to the company. Chontales, 8 to 8½; the advices here show a profit in the month of 389½. The gold produced, 352 ozs. from 1410 tons of stuff, realised 988½. The Javali Company made a profit of \$644; 1020 tons of quartz yielded 325 ozs. of gold. Emma, 3½ to 3¾; Flagstaff, 3 to 3½; Cedar Creek, 2 to 2½; Last Chance, 1 to 1½; Tecoma, ½ to 1; Pacific, ½ to 1; Sweetland Creek, 4½ to 5; Utah, 1½ to 1¾; Birdseye, 3 to 3½; Thornhill Reef, 1½ to 2.

The Market for Mine Shares on the Stock Exchange during the week has been fairly active, especially in some of the leading American mines. Shares in Hydraulic Mines continue in request, and in one or two instances are scarce for delivery.

The Metal Market has been inanimate and almost featureless, but no material alteration in values. Copper in fair demand. Tin shows a slight reaction, with a moderate amount changing hands. Lead quiet, but prices remain steady. Spelter in fair request.

Emma shares have remained firm throughout the week, and close at the advanced price of 3½ to 3¾; private advices continue to be of the most satisfactory character, and it is said that steps are about to be taken by some influential shareholders to obtain a totally independent report upon the mine with the view of dissipating the inexplicable disparity at present existing between the official and every statement from private sources.

A correspondent writes from Salt Lake City, under date Jan. 27—"Emma Mine has sold one week's produce from deep workings for \$45,000, since then they have sold their third-class ore. The sales have been—30 tons first-class ore, \$995 per ton; 100 tons second-class, \$467 per ton; and 100 tons third-class, \$167 per ton. This looks well for a played-out mine. They have paid off all their debts, put up a good pump, and have \$70,000 cash in hand. From a comparison of dates, the sales, cabled last week and announced, must be added to the above \$51,000: 30 tons at \$995=\$29,850; 100 tons at \$467=\$46,700; 100 tons at \$167=\$16,700; total, \$93,250; \$45,000=\$138,250." Another correspondent, under date Salt Lake City, Jan. 30, writes as follows:—

"Every reason that prompted me to cable you of the Emma holds good to day. The mine is all I have represented, and if I had or could for one moment have doubted it, I assure you now, from later advices, that my previous letter, advising you of the new development, is more than confirmed. Watching the result of the ore as I do over the assay furnace, the development is proved beyond cavil or dispute here. If the English community will not believe it, the value of the stock should not suffer. As advised, I cabled about the report of the Emma being exhausted, to which I must add that the mine never looked better; the mine, as it shows now, is extraordinary in every sense of the word. Ore assaying and realising as this does must give satisfaction, if it does not, pray tell me what will. Attwood has not resigned, and has no intention of it as far as I can learn. An intimate friend of his told me to-day that Attwood's opinion of the property was all it could be, to its honour and credit. He thinks it one of the best bodies of ore ever exposed. Neither the mine nor Mr. Attwood are at fault. If the stock does not advance, if the condition and product are not officially promulgated to information of stockholders, you may rely on it that Mr. Attwood is obeying instructions from head quarters. If 13 ft. of ore, assaying from 130 ozs., 320 ozs., and 672 to 750 ozs., are to be considered 'threads of ore' at the bottom, may the good Lord in his tender mercy and care give just threads of ore to me and mine. The lot of silver ore assayed on the 28th gave 762 ozs. silver to the ton. It was purchased by Dr. Smith for the Chicago Smelting and Refining Works. He paid \$11.17 per ounce of the silver, equal to the sum of \$786.24 per ton of 2000 lbs."

Flagstaff, 3 to 3½; the report to be submitted to the adjourned meeting, on Tuesday, states that, whatever else has failed, the mine has never failed to supply ore upon demand; it yielded 15,000 tons in 1873. The revenue accounts show that the total receipts for the past year amounted to 168,137½, and the expenditure to 126,204½ for the Utah management, and 7337½ for the management in London, leaving a balance carried to profit and loss account of 34,505½, which has been absorbed by dividends already declared and paid, and a balance of 2006½ has been carried to the balance-sheet. The failure of the anticipated results of the past year's working is attria



buted to the costs of management in Utah. On the whole, after 120,000, has been returned to the proprietors as against the capital of 300,000, the mine is reported to have better prospects than when it was purchased: the coming year must show what can be done by the application of economy and experience in its management, and no fear is entertained about satisfactory results. Last Chance, 1 to 1½; Tecoma, 15-16th to 1 1-16th. Utah, 1½ to 1½; in another column we give full account of the special meeting held on Tuesday last. A very animated discussion took place on the present position of the mines, and some of the speakers expressed an opinion that smelting would have to be recommenced to enable the company to reap the whole advantage of their immense reserves of ore. A call of 10s. per share was made, making the shares fully paid.

Richmond, 5½ to 6½. Cable received, "Week's run, \$19,000, one furnace." This is an improvement of \$1000 on the last week's return from one furnace. Mine reported looking well. The effects of the improvement in the condition of the reserves, now being steadily carried out, will, no doubt, be visible in the results as soon as the spring campaign fairly opens. It is a great point gained during the winter to be able to keep the staff and men together, even though the actual profit for the time should not be large. We are informed that the amount required to pay the dividend due on Feb. 28 was forwarded to the company on Saturday last. The circular just issued by Wells, Fargo and Co. states the yield of bullion in America for 1873 to have been \$72,258,693. Of this amount the State of Nevada, in which Eureka is situated, produced \$35,254,507, being more than half the total yield from all the other States. Fifteen mines are enumerated as having paid dividends in 1873, amounting to \$14,210,500, being an average of 16 per cent. on their present market price. In the face of these facts it is absurd to speak of American mines as all failures. Eberhardt, 3½ to 4; advises to hand state that ore has been struck in the central drift, and also that ore continues in the Ridsdale drift. South Aurora, 3 to 3½. Mineral Hill raisings for the week ending Jan. 26 amounted to 40 tons of ore of an average grade of \$50 per ton. New Pacific, 3 to 3½; Mr. J. D. Pringle writes that he has commenced work in the 400 feet level, on the North Star ledge, and writes as though he anticipated a discovery.

Colorado Terrible, 3½ to 4½; the agent writes, dated Jan. 27:—"The general appearance of the mine is very satisfactory, the stopes are now all in good mineral, and some parts exceedingly rich. Today we made an assay from ore taken from No. 1 stope, 5th level, which gave 2685 ozs. of silver per ton; of course, we do not expect this high grade of ore to continue throughout the working, but what does come out must certainly increase the value of our next shipment, as well as our second-class sent to the mill. The 6th level is now in 68 ft. west, and I think we shall have the same ore as we have in the 5th. The 39th shipment will be dispatched the beginning of February." This will make two shipments on the way to Liverpool, which are expected to realise at least 25000. Sales at the mine for the week—Second class, \$1346.42; third class, \$1465.11. The shares of the various Hydraulic Mining Companies have been in steady request all the week, and prices are a shade firmer at the close of business. Malpas, 3 to 3½; a meeting of shareholders of this company is called for Tuesday next to sanction the issue of 10,000, preference shares upon very favourable terms. The new capital is to be used to bring on to the mine an increased supply of water. The gravel, which is of enormous extent, has now been proved to be exceedingly rich, and even with the small head of water now available, and in the preliminary work of running an open-cut to the main bank, the mine is more than paying its cost.

Rica, 3 to 3½. Malabar, 3 to 3½; a very satisfactory report from the company's general agent (which will be found in another column) has been received, giving an account of his examination of the present state of the works. He fully verifies the economy and efficiency which Mr. O'Reilly and Mr. Anderson have exercised in the opening out of the mine. Cedar Creek, 2 to 2½; in another column we publish a letter from the superintendent. He was washing steadily at date, although a little hindered by the weather. The drill had been fixed, and would be started forthwith, so as to press the Yankee tunnel forward as fast as possible.

Birdseye Creek, 2½ to 3½; the letters in this week have been anticipated by the telegram announcing the clean-up; everything was progressing in a satisfactory manner. Sweetland Creek, 4½ to 5½; washing is being continued as usual, and a good clean-up is expected about March 15. Blue Tent, 5 to 5½; no change since last advice; all the works were progressing as usual, and washing as already advised. Chontales, 3 to 1; the advice appears in another column; the net profit for December was 3800; 1410 tons were crushed, which produced 352 ozs. of gold, or an average of 5 dwts. per ton, of the value of 9887.

Port Phillip, 3 to 3½; the quantity of quartz crushed during the month ending Dec. 3 was 4674 tons, and 27 tons of pyrites treated; the gold obtained was 1207 ozs. 2 dwts., or an average of 5 dwts. 4 grs. per ton; the receipts were 4625, and the payments 4224, including 1062 for firewood and timber contracts, leaving a profit on the month of 4000, which, added to last month's balance, made the amount carried forward 18007. During the corresponding period last year, 5212 tons of quartz were crushed, and 20 tons of pyrites treated, from which were obtained 927 ozs. 10 dwts. of gold, or an average of 3 dwts. 12 grs., resulting in a loss of 3754.

Scottish Australian, 1½ to 2; the sales of coal during November amounted to 12,642 tons; the returns for December were expected to be moderate. The miners at Cadia were continuing their operations, and from the date of the last report (when 76 ozs. of gold had been raised) they had up to Dec. 19 increased the quantity altogether to 148 ozs.

Van, 30 to 35; the mine remains much as last reported. Very little can be done as yet in the 75, as the water is issuing very strongly from the lode. Van Consols, 3½ to 3½; large buying orders at the present unjustifiably depressed prices remain unsupplied. The report in another column states the lode in the 15 fathom level under adit, 45 fms. shallower than the 60 under adit in the Van Mine, is producing 5 tons of lead per fathom, and the winze sinking under the same level is worth for lead for the length of the winze—only 8 ft.—4½ to 5 tons per fathom. Bog, 3 to 1; the sinking of the engine-shaft is progressing very well, the lode continuing good. At the general meeting, on Tuesday, the shareholders authorised the raising of 15,000, and it was announced at the meeting that one of the directors had offered to lend the company 5000, which amount the board thought ample. Pennerley, 1½ to 2; there is no change noticeable here. The lode in the bottom still holds good.

Derwent shares are being quietly absorbed by influential capitalists; a considerable number of the shares have been taken up by a few gentlemen who recently visited these famous mines. It is understood that the enterprise is introduced under the same favourable auspices as some of the present leading lead mines that now pay regular quarterly dividends and command substantial premiums in the market.

Subjoined are the closing quotations:—

Bog, 3 to 3½; Carn Breu, 38 to 40; East Van, 1½ to 2; East Lovell, 9½ to 10½; East Caradon, 1 to 1½; Great Lacey, 12½ to 13; Great Wheel Vor, 1 to 1½; Perkins Beach, 3 to 3½; Pennerley, 1½ to 2; Roman Gravel, 18½ to 19½; Tincroft, 34 to 36; Tankerville, 8½ to 9½; Van, 30 to 35; Van Consols, 3½ to 3½; West Chiverton, 5½ to 5½; West Tankerville, 1½ to 2; Wheel Grenville, 4½ to 4½; Almaden and Tinto, 3 to 3½; Birdseye Creek, 3 to 3½; Cedar Creek, 2 to 2½; Colorado Terrible, 3 to 3½; Cape Copper, 28½ to 28½; Chontales, 3 to 3½; Don Pedro, 3 to 3½; Eberhardt and Aurora, 3½ to 4; Emma, 3½ to 3½; Flagstaff, 3 to 3½; Lach, 12½ to 13; Malpas, 3 to 3½; New Quebrada, 4½ to 4½; New Pacific, 10s. to 12s. 6d.; Rica, 3 to 3½; St. John del Rey, 180 to 200; Sweetland Creek, 4½ to 5½; San Pedro, 2 to 2½; Tecoma, 15-16 to 1 1-16 Utah; 1½ to 1½; Malabar, 3 to 3½; Richmond, 5½ to 6½; Blue Tent, 5 to 5½; Holcombe Valley, 3 to 1; West Esqair Lie, 2½ to 3½.

COLLIERIES AND IRON COMPANIES.—The characteristic feature of the week has been the steady and absorbing demand for the shares of the United Bituminous Collieries. Heavy buying orders have been received from the country, and several hundreds of shares have changed hands. Very soon, we understand, the Weig Colliery will be in full swing, when the returns of coal will be almost doubled. The profits made from coke and fire-bricks must not be lost sight of, the latter forms an item of revenue nearly as valuable as the coal; and several hundred thousands will be turned out annually. It may be worth bearing in mind that these collieries, from their central

position in South Wales, are tolerably independent of market fluctuations in prices. The shares close firm at 1½ to 1½.

Some enquiry has also prevailed for Littledean Woodside Colliery, but the shares are seldom dealt in, and close quotations cannot be had. We believe them to be 5 to 5½. A good business has been done in Cardiff and Swansea. We have been given to understand that the current earnings up to date would suffice for a division of 8s. 6d. per share. Shares are well worth buying at the present moment, the quotations (3½ to 4½) being unduly low. Maraballa Iron, 4½ to 4½; the meeting will be held early next month—on the 3rd. Rhymney, 45 to 47, a rise of 1½ on the week; the annual meeting is called for the 25th inst. Monkland Iron, 7½ to 8; Ebbw Vale, 22, 23; Chatterly Iron, 45, 47; Hopkins Gilkes, 9 to 9½; Bowling Iron, 75 to 80; Boleklow A, 30 to 31 prem.; Silkstone and Dodworth, 22½ to 23½ prem.; Silkstone Fall, 5½ to 5½; Central Swedish Iron, 7½ to 8½; Nant-y-Glo and Blaina, 55 to 60; New Sharlston, 12 to 14 (13½ paid), and 15 to 16 (17½ paid); the statutory meeting was held at the offices in Old Jewry, when the directors' report was adopted. On 5000 shares it appears that the call of 4d. due in April has already been paid, and by this means possession has been held of the collieries since Nov. 20; and from that date to Dec. 30, the output has amounted to over 19,000 tons, or more than a daily average of 600 tons. Few transactions are recorded in the shares.

An extraordinary meeting will be held on the 10th proximo to confirm the resolution by which Clause 126 in the company's Articles, to which exception has been taken by the Committee of the Stock Exchange, has been rescinded. Welsh Freehold, 5 to 5½, with a good enquiry; they have over 32,000,000 of coal, and over 9,000,000 tons of iron ore unwon, with an estate of 1312 acres on which no rent is payable. The directors have further taken on lease a new mineral property of 700 acres. Dunraven Adare, 8½ to 9; Cleo Hill Colliery, 12s. 6d. to 17s. 6d.; Newport Abercarn, 2½ to 3; West Mostyn, 2½ to 2½; Branycae and Cadley, 1½ to 2; Fitzroy Bessemer, par to 1 prem.; the directors are in receipt of advices from the manager in New South Wales, dated Dec. 27. For some time past every possible exertion has been directed to the railway leading into the coal valley. By the end of this month it is believed the road will be ready for the rails. The distance from the works will not be more than 3½ miles, and it is proposed to order a small locomotive forthwith. Three seams of coal, all good for the manufacture of pig-iron, are being actively driven into, and the moment the railway is completed they will blow in the furnace. The price of finished iron remains high in the colony, and will do so for some years to come. Private and Government orders from Sydney have been largely received, which will leave a much wider margin of profits than our home ironmasters are accustomed to receive. Altogether the prospects appear to be most encouraging. Merry and Cuninghame, 3½ to 4. Original Hartlepool, 10½ to 11½; the ordinary meeting will be held on the 25th inst. Chillington Iron, 6½ to 7. Mwyndy Iron Ore, 1½ to 2½; at the meeting on Wednesday the directors' report was adopted and a dividend of 4s. per share declared, carrying 2575d. forward.

At the Truro Ticketing, on Thursday, 2020 tons of copper ore were sold, realising 88900. 10s. The particulars of the sale were—Average standard, 93d. 14s.; average produce, 7½; average price per ton, 47. 8s.; quantity of fine copper, 154 tons 4 cwt. The following are the particulars of the sales:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Jan. 22	3847	97	3	0	11s. 7d.	257 16 0
Feb. 5	1848	93	5	0	11s. 7½	58 1 0
17	2020	93	14	0	11 6½	57 12 6

Compared with the last sale, the decline has been in the standard 17. 6s., and in the price per ton of ore about 2s.

Messrs. Grant Brothers and Co., as bankers and agents in Europe, are inviting subscriptions, at 900. per 1000. bond, for 1000 SEVEN PER CENT FIRST MORTGAGE DEBENTURE BONDS OF 1000. each, repayable in ten years, of the RIVER PLATE AND BRAZIL TELEGRAPH COMPANY, formed to complete the chain of communication between Europe and South America, by connecting by a submarine cable the city of Rio de Janeiro, the capital of Brazil, with the cities of Montevideo and Buenos Ayres. For this purpose an exclusive privilege for 60 years (therein differing from nearly all other telegraph companies) has been granted by the Imperial Government of Brazil. By this concession facilities will be afforded to the important commercial districts of the River Plate and (by the Transatlantic telegraph system) to Valparaiso and the West Coast of South America, not only for intercommunication, but also for communicating by telegraph directly with Europe. The submarine cables, about 1130 miles in length, have been constructed by Siemens Brothers, and the first portion has already left England, and the remainder will be shipped within about a week. An agreement has been entered into with the Western and Brazilian Telegraph Company, whose line extends from Para to Rio de Janeiro, to work and maintain, free of charge, all the cables of this company, and to pay to this company for the term of 40 years 20 per cent. of the gross receipts of the entire system between Para on the north and Montevideo on the south. An agreement has also been made between the Montevideo and Brazilian Telegraph Company—whose cable extends from Montevideo to the Brazilian frontier, and which was laid on Sept. 6 last—by which that company agrees to hand over its cable to this company, receiving for the same 3 per cent. out of the 20 per cent. to be received by this company from the Western and Brazilian Telegraph Company. Upon the net receipts coming to this company from the working of the cables and the land lines the debenture bonds now for subscription are secured as a first charge by a deed of mortgage duly executed to trustees for the bondholders. The prospectus will be found in another column.

The THAMES AND GENERAL LIGHTERAGE AND TRANSIT COMPANY, with a capital of 100,000, in shares of 50. each, has been formed to organise a fleet of barges to facilitate the speedy transit of the shipping business, which it is stated is often impeded for want of this accommodation. The prospectus estimates that there are not fewer than 150 large firms, besides 50 coal merchants, 42 timber merchants, 42 brewers, 12 distillers, and 18 coal and vegetable merchants, employing barges situated above London Bridge, and that the whole of these 320 establishments rely almost entirely upon the assistance of barges in loading and unloading. The prospectus further states that frequently under the present system great delay in connection with shipping a serious loss occurs. Besides, many vessels, especially grain laden, are compelled to unload and reload in a given time. The profits made by barge proprietors at present is 50 to 60 per cent. on the capital employed, and the present company anticipate earning, after making allowance for management and incidentals, 14½ per cent. per annum, so that in about seven years each investor may receive back the total amount invested. The company's proposed capital will at least 200 barges on the river, with steam-tugs to work them, thus rendering them independent of wind and tide. At present there are 6000 barges only, equal to a tonnage of 240,000, which is far below the demand. The prospectus will be found in another column.

It is announced that the coupons of the Atlantic and Great Western Railway Reorganisation Stock due March 1 next will be paid on and after that date at the offices of Messrs. Bischoffheim and Goldschmidt, or at the City office of the company, 86, Gresham House; also that of the total principal of 800,000, of the above stock, issued in two amounts of 400,000. each, on Feb. 24 and May 25, 1871, respectively, 648,900, will be converted into the First Mortgage Bonds of the Atlantic and Great Western Railroad Company on terms of issue, and that the balance outstanding (151,100) will be paid off on Aug. 1 next, with interest due thereon.

The coupons due March 1 next on the Erie Railway Sterling Loan of 1865, negotiated through Messrs. J. S. Morgan and Co., will be paid at their counting-house. Also on the issue of \$30,000,000, or 6,000,000, Seven per Cent. Consolidated Mortgage Bonds on and after that date at the offices of Messrs. Bischoffheim and Goldschmidt, or the London office of the Erie Railway Company. The Preference Shares of the Wayne's Merthyr Steam Coal and Iron Works are ½ to 1 prem. The Debenture Bonds of the Honduras Railway Conversion Company are par to ½ prem.

#### TYRONE COAL MINING COMPANY (LIMITED).

WANTED, by this Company, for their COLLIERIES, near DUNGANNON, IRELAND, A GOOD PRACTICAL CERTIFIED MANAGER. One capable of keeping the plans of the works preferred.

Applications, stating salary expected, with testimonials, to be addressed to—SILAS EVANS, Secretary.

9, Victoria Chambers, Belfast, February 16th, 1874.

WANTED, a SITUATION, to TAKE CHARGE of a SMALL MINE, by a PRACTICAL MINING CAPTAIN, who has had twenty-four years' experience in all branches of the profession, both under and overground. He is thoroughly conversant with drilling, mapping, and assaying ores. Good testimonials and references.

Address, "M. G.," care of Mr. B. Morris, London and County Advertising Offices, 43, Ludgate-hill, London, E.C.

WANTED, by a Young Gentleman, a SITUATION as ACCOUNTANT, who has had practice in SMELTING and ASSAYING. Good references.

Address, "A. B.," MINING JOURNAL Office, 26, Fleet-street, London.

WANTED, a SITUATION as MANAGER of a SMALL, or UNDER-MANAGER of a LARGE, MINING ESTABLISHMENT. The applicant has had several years' experience in the direction of mining works in Spain; has a fair knowledge of French, and a thorough knowledge of Spanish. Address, "W. J.," care of Mr. J. H. Neale, No. 6, Great George-street, Westminster, S.W.

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LEAD ORES.—LEAD-SILVER ORES.—SILVER-LEAD ORES.  
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WANTED, an EXPERIENCED MINING CAPTAIN, to TAKE CHARGE OF THE WORKING AND DEVELOPMENT OF THE COMPANY'S MINES IN CANADA. Some knowledge of smelting is desirable. Applications, stating salary required, accompanied by testimonials, must be addressed to the Chairman of the company, on or before the 28th inst. 20, St. Helen's place, London, 2nd February, 1874.

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WANTED IMMEDIATELY, A THOROUGHLY PRACTICAL MAN, competent to act as FOREMAN upon LARGE SILVER-LEAD and BLENDE DRESSING-FLOORS. Must thoroughly understand the working of Collins' jiggers. Must also be energetic and strictly sober. A properly qualified man will be liberally dealt with.

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NEW PAIR HORIZONTAL WINDING ENGINES FOR SALE, 13½ in. cylinder, 30 in. stroke, 6 ft. drum—Instant delivery. JOHN MOORE, 40, Lloyd-street, Albert-square, Manchester.

#### LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Jan. 30	Caldbeck Fells	213	13 0	Burby Port Company.
—	ditto	3	12 8	ditto
—	ditto	24	1 0	Nevill, Druce, & Co.
Feb. 12	Prince Patrick	35	14 13 6	A. Eytan.
—	Minera	53	13 18 6	Walker, Parker, & Co.
—	ditto	50	14 2 0	Nevill, Druce, & Co.
—	ditto	28	13 19 0	ditto
—	ditto	60	14 2 6	Walker, Parker, & Co.
—	ditto	16	14 5 0	Panther Lead Co.
18	Ballacorkish	46	11 10 0	Walker, Parker, & Co.
—	East Llangynog	20	12 10 0	Panther Lead Co.
—	Lisburne—Glogfawr	45	14 18 0	Walker, Parker, & Co.
—	Frongoch	40	13 10 0	Panther Lead Company.
—	—	40	13 10 0	ditto
—	Graigoch	30	13 0 0	ditto
—	Goginan	20	18 3 6	Adam Eytan.

#### BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Feb. 17	Talargoch	150	£ 3 17 6	Richardson and Co.

#### BLACK TIN.

Date.	Mines.	Tons	c.	q.	lb.	Price p. ton.	Amount.	Purchasers
Feb. 14	W. Kty. (St. Ag.)	15	4	0	20	... £62 0 0	... £842 19 0	—Michell.
	—Wheal Ury	12	6	2	15	... 58 0 0	... 715 4 9	—Tregoning.
18	So. Condurrow	10	16	3	8	... 59 10 0	... 645 0 10	—ditto
19	ditto	25	19	2	6	... 59 16 6	... 1554 2 6	—Bolitho.

#### AUSTRALIAN TIN ORE SOLD IN LONDON on Feb. 17.

Qty.	Price.	Purchasers.	Qty.	Price.	Purchasers.
cwts. £ s. d.	cwts. £ s. d.		cwts. £ s. d.	cwts. £ s. d.	
5... 35 0 0	Bolitho and Sons.	24... 35 0 0	Danbuz and Co.		
150... 61 15 0	Calenick Smelting Co.	30... 52 10 0	ditto		
50... 59 5 0	ditto	16... 55 0 0	ditto		
8... 80 0 0	ditto	42... 60 0 0	ditto		
20... 58 15 0	ditto	22... 60 10 0	ditto		
25... 60 0 0	ditto	100... 58 15 0	ditto		
4... 40 0 0	ditto	25... 54 10 0	Redruth Smelting Co.		
10... 30 0 0	ditto	29... 50 15 0	ditto		
150... 61 15 0	Bolitho and Sons.	50... 56 5 0	ditto		
48... 28 7 6	Tregoning and Co.	43... 57 10 0	ditto		
20... 31 5 0	Williams, Harvey, & Co.	190... 57 10 0	Redruth Smelting Co.		
216... 64 5 0	ditto	42... 57 10 0	Tamar Smelting Co.		
30... 53 2 6	ditto	78... 61 0 0	Tamar Smelting Co.		
6... 25 5 0	ditto	63... 57 0 0	ditto		
45... 61 15 0	R. R. Michell and Co.	17... Withdrawn.			
61... 54 10 0	ditto	47... Withdrawn.			
35... 59 5 0	ditto	39... Withdrawn.			
30... 37 10 0	Tregoning and Co.	236... Withdrawn.			
		32... Withdrawn.			

Each Company's Purchase.	Total.
Bolitho and Sons	17 7
Calenick Smelting Co.	17 7
Williams, Harvey, & Co.	16 0
Danbuz and Co.	11 14
R. R. Michell and Co.	7 11
Tregoning and Co.	5 5
Total	101 16

#### PERUVIAN TIN ORE SOLD IN LONDON on Feb. 17.

Qty.	Price.	Purchasers.	Qty.	Price.	Purchasers.
cwts. £ s. d.			cwts. £ s. d.		
175... 53 15 0		Bolitho and Sons.	155... 56 15 0		Daubuz and Co.
200... 51 15 0		Calenick Smelting Co.	89... 53 15 0		R. R. Michell and Co.
130... 37 10 0		Doitto.	60... 30 0 0		Doitto.
175... 56 5 0		Bolitho and Sons.	15... 40 0 0		Doitto.
		Charlestown Smelt. Co.	155... 56 15 0		Tregoning and Co.
EACH COMPANY'S PURCHASE.					
Bolitho and Sons.....	Tons	29 6	Redenth Smelting Co. ....	Tons	7 18
Calenick Smelting Co. ....		7 18	Charlestown Smelting Co. ....		4 7
Daubuz and Co. ....		7 18			
R. Michell and Co. ....		7 18	Total.....		57 6



## COALS.

CONTRACT DEPARTMENT, ADMIRALTY, WHITEHALL, S.W.  
17th February, 1874.

TENDERS will be RECEIVED on THURSDAY, the 23rd inst., until Two o'clock P.M., for the following quantities of LAND ENGINE COALS, viz.:

CHATHAM	14,400 tons.
SHEERNESS	4,300 "
PORTSMOUTH	11,000 "
DEVONPORT	7,700 "
PEMBROKE	1,400 "

Their Lordships do not bind themselves to accept the lowest or any tender, and they reserve to themselves the power of accepting any part of a tender.

Forms of tender, containing all particulars, may be obtained at this office, on application, either personal or by letter.

FRANCIS W. ROWSELL,  
Superintendent of Contracts.

## BRITISH OAK TIMBER.

CONTRACT DEPARTMENT, ADMIRALTY, WHITEHALL, S.W.  
18th February, 1874.

TENDERS will be RECEIVED on TUESDAY, the 10th March next, until Two o'clock P.M., for—  
TWO THOUSAND THREE HUNDRED LOADS OF BRITISH OAK TIMBER, and TWO THOUSAND AND SIXTY BOAT CROOKS.

Their Lordships do not bind themselves to accept the lowest or any tender, and they reserve to themselves the power of accepting any part of a tender.

Forms of tender, containing all particulars, may be obtained at this office, on written or personal application.

FRANCIS W. ROWSELL,  
Superintendent of Contracts.

## Notices to Correspondents.

\* \* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt; it then forms an accumulating useful work of reference.

DIAMOND BORERS.—In October, 1872, a 4 in. diamond borer was used by Mr. John Vivian, at Liddal, in Furness, which brought up a 3 in. core; and since that time 5, 4, and 3 in. diamond borers, or crowns, have been constantly employed to bore holes varying from 500 to 1200 ft. deep. In the northern counties of England there are now holes 900, 1100, and 1200 ft. deep, from which 3 in. cores are being daily brought to surface.

MR. ABRAHAM BENNETT.—We have a parcel for this gentleman: will he state where it shall be forwarded.

Received.—"F. W. S."—"E. N."—"Emerald"—"J. T. B." (Utah City)—John Hunt (Gleedon)—"J. S. P." (San Francisco) Two copies received: one shall be forwarded as requested—"Shareholder" (Emma)—"X. Y. Z."

PRINCE PATRICK.—In the List of Sales of Lead Ore, in last week's Journal, the Prince Patrick is entered as selling 25 tons only instead of 35 tons, the actual sale.

QUOTATIONS FOR MINE SHARES.—We have frequently stated that, with regard to the quotations of many mine shares, it would be impossible to sell them at the quotations given in the Share List—or, indeed, to effect a sale at any price whatever in the market; yet, as the transactions are couched for as having taken place, we are bound to record the prices as business done. It should be understood, however, that the prices are only those obtained by the promoters or others in a similar position from the public.

SCALE FOR ADVERTISEMENTS.—Our charge for general advertisements is—for six lines and under, 4s.; per line afterwards, 8d. Average, 12 words per line.

AMERICAN SUBSCRIBERS.—In reply to several enquiries, it may be stated that subscribers in the United States can be supplied with the Mining Journal, post free, at the price of \$2 gold per annum, payable in advance, by remitting to Mr. D. Van Nostrand, publisher, and importer of scientific books, &c., Murray street, New York; or, direct to our Office, 26, Fleet street, E.C.

\* \* The TITLE-PAGE and INDEX to VOLUME XLIII., for the year 1873, was published in the Supplement to the Journal of Jan. 24.

## THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, FEBRUARY 21, 1874.

## THE MINING INTEREST IN PARLIAMENT.

Now that we have seen the last of the elections we are in a position to notice with unflinching accuracy to what extent the mining interest will be represented in the new Parliament. Seeing that mining is the actual groundwork of our prestige as the great manufacturing centre of the world, and that the product of our mines form the aliment of almost all our industries, it is of the greatest importance that the coal and iron trades of the country should be fully and ably represented in our legislative assemblies. We are, therefore, glad to find that although we have lost one or two gentlemen whom we should like to have seen in their former places, yet that the mining interest has been considerably strengthened in the House of Commons. Not only will there be an addition numerically, but there will be an undoubted increase, not only in practical ability but in effective speaking as well.

Mining and the manufacture of iron, it may be said, are businesses that can be carried on by the greatest in the land without loss of caste, and are the material sources of the revenues of some of the most illustrious names to be found in the peerage. Consequently the coal and iron trades will always find plenty of supporters in the House of Lords. Amongst those who are largely interested in these important industries we find the Premier Duke—the Duke of NORFOLK—who is not only a very extensive mineral owner, but also works a couple of collieries on his own account close to the town of Sheffield. In the same locality Earl FITZWILLIAM has several coal and ironstone pits, whilst the minerals in the West Riding are being raised on the estates of Earl MANNERS, Viscount HALIFAX, the Duke of LEEDS, Lord MEXBOROUGH, and other peers. In the southern part of the same vast field, commencing at Nottingham, the coal is now being sunk to on the estate of the Duke of ST. ALBANS, and has long been worked on the properties of the Duke of RUTLAND and the Duke of DEVONSHIRE. The latter, we believe, is the lessor of the greater part of the coal being raised by the well-known Staveley Company, whose area is nearly 6000 acres, the annual productive power being equal to 800,000 tons a year. In the North of England the colliery proprietors include the names of the Duke of NORTHUMBERLAND, the Marquis of LONDONDERRY, the Earl of LONSDALE, Earl DURHAM, Earl BECTIVE, Lord LECONFIELD, Lord DUNSTON, and others. In Staffordshire, where it is worthy to note pig-iron was first made from pit coal, the early reputation of the county still adheres to it, and amongst the titled owners are Earl GRANVILLE, Earl DARTMOUTH, and Earl DUDLEY, who has several furnaces in blast at Dudley Port and Brierly Hill, as well as a large number of collieries in the same localities. His lordship may well feel proud of his position as a coal and iron master, seeing that it was a scion of his own house who succeeded, so far back as 1620, after overcoming more than ordinary difficulties, and a lifetime spent in the work, in making good pig-iron with ordinary pit coal, and, as he said at the time, "sold it to divers men yet living for 12s. per ton. I also made all sorts of cast-iron ware, such as brewing cisterns, pots, and mortars, better and cheaper than any yet made in these nations with charcoal." In North and South Wales the Marquis of WESTMINSTER, the Marquis of BUTE, and Lord MOSTYN are well-known mineral owners, as are the Duke of BUCKLEIGH, the Duke of SUTHERLAND, and Lord ROSSLYN in Scotland. The owners of the clay mines of the South of England include the names of Earl MOUNT EDMUNDE, Viscount PALMOUTH, Lord VIVIAN, and Lord ROBERTS. From the names we have given above, and which form only a portion of the titled owners of the minerals in the kingdom, it will be evident that the mining interest is very strong in the House of Lords.

In the new House of Commons some few losses have been sustained, the principal being Mr. G. ELLIOT, not only a very large employer of miners, but one of the leading mining engineers in the kingdom, having commenced life as a "pit lad" at a very early age. The coup d'état of Mr. GLADSTONE found Mr. ELLIOT in the land of the Pharaohs, so that he was rather late in the field, and laboured under other disadvantages, which led to his being defeated, and

treated with considerable brutality by the pitmen of South Durham, who were indebted to him, perhaps, more than to any other man for their present position, and comparative immunity from danger whilst following their employment. We are glad to perceive, however, that Mr. ELLIOT's son has for the first time been returned to Parliament for the northern borough of Northallerton. One of the seats for South Durham has been secured by Mr. I. LOWTHIAN BELL, who is connected with the Walker Ironworks on the Tyne, and the Clarence Ironworks on the Tees, as well as with several collieries in that part of the county he now represents, the latter producing about 2000 tons of coal a-day, and the furnaces at the rate of 2000 tons of pig per year. Mr. BELL, who is a director of the North-Eastern Railway, is a gentleman of considerable scientific attainments, and, if we mistake not, is the President of the Iron and Steel Institute. He is a leading authority on all matters relating to the production of iron, and will consequently be a most valuable addition to the mining body having seats in the House of Commons. Mr. JOSEPH WHITWELL PEASE is another northern magnate who has been elected for Durham county. The honourable gentleman belongs to the well-known and greatly-respected Quaker firm of JOSEPH PEASE and partners, whose collieries in South Durham produce something like 1,400,000 tons of coal annually.

Northumberland, again, sends the Hon. G. LIDDELL, and the owner of the Weardale and Allendale lead mines, Mr. W. B. BEAUMONT, who may well be termed the "Lead King," seeing that his mines are probably the most productive in the world, and who is also a large coalowner in Yorkshire, where he has an extensive estate. His cousin, Colonel BEAUMONT, the inventor of the diamond drill, has also been successful in maintaining the seat he held during the last Parliament. As in duty bound, we may say, the electors of Middlesborough have again returned Mr. BOLCKOW, for it will be recollected that the very existence of that town was due to the firm of BOLCKOW and VAUGHAN, who were the first to discover and open out the vast deposits of ironstone in the Cleveland range.

Coming to Yorkshire, we find that the large and thriving town of Leeds is now represented by two colliery owners. Alderman CARTER was a member of the late Parliament, but Mr. TENNANT enters St. Stephen's for the first time. The latter is a very good man of business, and is chairman of the Manstone Colliery Company, near Leeds, as well as chairman of the Coalowners' Association of the district, and will, consequently, speak with some authority on mining matters, so far, at least, as the West Riding of Yorkshire is concerned. Mr. W. S. STANHOPE, member for the South-West Riding, is another able business man, and a very extensive coalowner, who is likely to make his mark in Parliament. Before leaving Yorkshire we must not omit the name of the member for Oxford University, the Right Hon. G. HARDY. He is connected with the famed Lowmoor Ironworks, under the name of HIRD, DAWSON, and HARDY, and who have several collieries in the Leeds and Bradford districts. The firm is not only a very wealthy, but a most liberal one, and quite recently subscribed 1000*l.* towards founding a chair of geology and mining in connection with a college of science about to be established at Leeds. Taking an easterly direction, we get to Doncaster, and thence to the northern part of Lincolnshire, one of the members for which is Mr. ROWLAND WINN, who is opening out a vast field of ironstone at Frodingham, which promises to become a second Middlesborough. A large tonnage of the stone is being exported in nearly all directions, whilst there is every probability that coal will be found in the same locality. Few iron-making districts, indeed, look more promising or inviting than does that of Frodingham, and into which a good deal of capital has recently found its way.

Lancashire, it appears, has returned several representatives who are more or less interested in mining pursuits. Wigan sends Lord LINDSAY, eldest son of the Earl of CRAWFORD and BALCARNAS, a large mineral owner, and chairman of the Wigan Coal and Iron Company, and along with him Mr. KNOWLES, of the firm of PEARSON and KNOWLES, owners of the Ince Moss, Barley Brook, Spring, and Hindley Field Collieries. Nottinghamshire has also sent several large mineral owners, including the members for Retford—Lord GALWAY and Mr. F. POLJAMBE. The owner of the Clifton Colliery, close to Nottingham—Mr. SAUL ISAAC—has been returned for that town, and is the first member of the Jewish persuasion who has been returned to Parliament in the Conservative interest. The two new members for Boston, Messrs. INGRAM and PARRY, have an interest in the Stafford Main Colliery, near to Barnsley; Mr. JACKSON, who has been returned for Coventry, is connected with the Clay Cross pits; whilst Mr. NEWDEGATE is the owner of the Griff Colliery, near to Nuneaton. Few names in the mining world are better known than that of BROGDEN and SONS, and one of the firm has been returned for Walsley. Another household name is that of FOTHERGILL, and we are glad to find that Merthyr has relegated to the House of Commons a gentleman so deservedly popular as Mr. W. H. FOTHERGILL, notwithstanding the strenuous efforts made by Mr. HALLIDAY, the president of the Amalgamated Association of Miners, to oust him. Powerful as the miners of Merthyr undoubtedly are, it is evident that a great many of them are by no means desirous of seeing one of their own body placed so very high above his fellows.

It is gratifying to find that Glamorganshire has recognised the faithful and valuable services rendered by Mr. H. H. VIVIAN, by continuing him as its representative. He is a most valuable member, as was shown by the active part he took in the Committee on Coal last year. In connection with mining in North Wales there are several well-known gentlemen who will be in the next Parliament. Mr. GLADSTONE, the late Premier, has a considerable mineral field at Ewloe, a little more than a mile from Hawarden, which formerly belonged to the Dundas family, but purchased by him some three or four years ago. There are several very good seams of coal, as well as clay, that are worked by the Aston Hall Colliery Company, who have now a line of rails laid from the pit to Queensferry, by which the London and North-Western Railway is reached on one side and the landing-stage of the River Dee on the other. Consequently, Mr. GLADSTONE's interest in mining must now be considerable, for the colliery and works have cost something like 80,000*l.* Sir WATKIN W. WYNN, the popular member for Denbighshire, is a very extensive coalowner in the Ruabon district, whilst the family of Lord ROBERT GROSVENOR, who has been returned for Flintshire, is amongst the largest owners of lead and coal in the county. The Hon. DOUGLAS PENNANT has been returned for Carnarvonshire, where Lord PENNANT has considerable influence, as the owner of the well-known slate quarries as well as other property. In Scotland, Mr. J. WHITEHEAD, a member of the wealthy and powerful firm of WILLIAM BAIRD and Co., of Gartsherrie, has been returned for Glasgow, whilst the great Mr. MERRY has retired from parliamentary life altogether.

From the selection of names we have given it will be seen that the mining interests will be represented by many of the ablest men that will sit in the House of Commons, so that questions relating to the working of minerals in any part of the kingdom will find gentlemen well acquainted with them fully able to take part in their discussion, with credit to themselves and advantage to the House and country as well.

Before concluding, we cannot do otherwise than notice a new element which will be introduced into the House on its assembling. We allude to the two representatives of the colliers—Mr. McDONALD and Mr. BURT, who have been returned for Stafford and Morpeth. The former is a clear-headed man, well acquainted with all that relates to the body he has so long been connected with, but as he himself says that the miners have obtained almost all they require he purposes turning general legislator. But we do not think he will shine to any great advantage in that line in a place where he will find himself sadly over-matched, whilst the declamatory style peculiar to those long accustomed to address uneducated mobs is not likely to find much favour in the House of Commons. Mr. BURT is a quiet, unassuming man, and, like Mr. McDONALD, an extreme Radical, and we do not think that the atmosphere of the House of Commons will be found at all well adapted for his Northumbrian oratory; whilst, being more of a paid delegate than an independent member, he will in every way be out of his element, and find himself in all probability isolated from those who pride themselves upon their independence, as well as their education and manners. Both

members, however, will doubtless settle down as attentive listeners and quiet voters, and nothing more; indeed, we question whether they will not find that the honour of M.P. following their names has been too dearly purchased, seeing that that is the only one they are ever likely to attain to as senators. Their labour will consequently be light. *Vox et preterea nihil.*

## RAILWAY IRON IN THE UNITED STATES.

Notwithstanding dear iron and financial difficulties a very considerable extent of new railroad was, after all, completed last year in the United States, some 5245 miles having been made available for traffic. The construction of new lines in the American Republic has proceeded as follows during the ten years ending with 1873:—

Year.	Miles.	Year.	Miles.
1864	582	1869	6588
1865	909	1870	6675
1866	1543	1871	7112
1867	1926	1872	6511
1868	3450	1873	6245

In 1864 the Northern States were making their last supreme—and, as it happily proved, successful—effort to terminate the Civil War. The terrible struggle was brought to a close in 1865, and from that year until 1871 there was a continual increase in the activity displayed in the construction of new railroads. In 1872 some symptoms of exhaustion presented themselves; these symptoms were still further aggravated until a disastrous panic set in in September, 1873, and gave the coup de grace for a time to all but the soundest railroad corporations existing in the United States. There can be no doubt, in fact, that in 1869, 1870, 1871, and 1872 the development of new lines was greatly overdone; and many wilderness railroads, built in the main to secure land grants, have proved illusory in their character, non-productive of traffic, and comparatively, if not wholly, ruinous to both stockholders and bondholders. Some thousands of miles of these roads have been built during the last five years, and only a few of them are able to earn interest on their bonds. Hundreds of miles westward of the Missouri are still waiting for population to use them; this population will, no doubt, flow in in time, but until it accumulates bondholders will go without their interest, and stockholders must remain without dividends. Several new roads—and notably the Northern Pacific and the Canada Southern—were brought to a virtual standstill in consequence of the panic of September, 1873, their credit having collapsed as from that date. It does not appear probable, then, that the work of construction will advance very rapidly in 1874; on the contrary, there is little doubt that the American railroad interest will secure what it greatly requires—rest.

One circumstance which has tended to materially increase the consumption of railway iron in the United States during the last few years has been the salutary tendency to double-track existing lines, and also to multiply side-tracks, or, as we should call them in England, sidings. This policy of substantial improvement is being carried out by the old established companies, which have developed a large and increasing business in the long-settled States. Even at points where old established roads are not being double-tracked, the permanent way is being strengthened and improved by the introduction of steel rails, or heavier iron rails; and as these improvements are being carried out by companies enjoying a well established credit, they are not likely to come to an end, as in spite of the now happily nearly subsided panic of September, 1873, the traffic of such systems as the Pennsylvania, the Illinois Central, the Chicago and North Western, the Philadelphia and Reading, the New York Central, &c., which run through comparatively populous and wealthy districts, has remained unaffected, and has even increased. Still, notwithstanding the large expenditure which the older railroad companies of the United States will, doubtless, continue to make for works of improvement and extension, the collapse for a time of construction operations in the extreme Western States and Territories by new groups of projectors, must exert a depressing influence upon the demand for railway iron among the Americans in 1874; and as the production of American iron has been greatly extended during the last three or four years, the imports of English and European railway matériel must be greatly curtailed during the current twelve months. This curtailment in foreign imports of railway iron by the United States is no imaginary matter, but it is already a realised fact, since in January we only sent the Americans 7444 tons of railway iron, as compared with 27,838 tons in January, 1873, and 35,299 tons in January, 1872. Recent experience has no doubt, made our ironmasters cautious, and orders are probably now accepted only from American railroad companies known to enjoy an established repute and credit; nevertheless, the loss of American custom must be felt, to some extent, by the British iron trade. Consolation can only be found in the undoubted facts that the natural resources of the United States are very great indeed; that their population is growing at a rapid rate; and that the accumulated capital of this population must also be increasing. The shock given to railroad construction among the Americans by the formidable panic of September, 1873, can thus only prove but temporary. The locomotive must steadily advance into the wilderness West, as the tide of population also surges into it; but the bitter experience of the last six months shows that it is not well to attempt to anticipate the future too much, and that nothing but loss and vexation can attend the development of premature American railroad undertakings.

ANTHRACITE COAL AND PETROLEUM IN ITALY.—The First Commissioner of Mines has given a very important declaration to the effect that success has attended them at last in discovering a true and real anthracite coal bed, the first in Italy. The field is near Monsici, which belongs to the Commune of Demonte, in the department and province of Cuneo, in Upper Italy. Similar discoveries had been previously reported, but in the end it always turned out that the mines contained lignite of a quality more or less good. In the present instance, however, the matter has been decided by the judgment of a competent board of commissioners. Speaking about newly-discovered mines, it may also be mentioned here that reports have been received from Sondrio that upon the land of the Cavalier Laschi exceedingly rich petroleum springs have been discovered, of which such an enormous yield is expected that it is supposed to reduce the import of petroleum by 20,000,000 litre annually.

MINING IN UTAH.—A correspondent, writing from Salt Lake City (Jan. 25), says:—"The Emma Mine is working on a body of valuable ore from 300 to 1000 ozs. silver per ton; 50 tons from the 90 produced last week 320 ozs. silver; 10 tons just arrived at the sampling works average 1000 ozs. Camp Floyd mill is doing well. Reed and Benson has struck a nice body of rich ore. The Mono Mine, in Dry Canyon, continues to produce the richest ore in this territory. The Chicago is doing well. The Miller Mine (American Park Dish) has also struck a very large body of ore, and the company have bought all the property around the mine. In the southern part of Utah very extensive coal fields have been discovered. It is certain that Utah is a rich mineral country, and that mining business will be flourishing this year."

GIPPSLAND, AND ITS TREASURES.—LATROBE STREAM TIN MINE.—Every succeeding mail brings additional confirmatory information of the prolific nature of this important discovery of stream tin. As a matter of course jealousy has been excited against the fortunate and much-deserving prospectors, in consequence of the Government having granted those gentlemen 500 acres—a thing unprecedented in that or any other colony—which was denounced in the local papers as a hideous monopoly. Such shafts fall harmlessly, and merit has its reward. Telegrams received by the last mail state that the men prospecting have been quite astonished as they progress to find the tin getting coarser and thicker every day. So favourable are appearances in all respects that the mine has already been designated—"The Mine of the Colony."

LOFTY RAILROADS.—The altitude of the highest points in the world, where railways are now in operation, is at Apizaco, on the Vera Cruz and Mexico Railway, 7478 ft. above the level of the sea. The next highest is on the Central Pacific, in the Nevada range 7111 ft. above the level of the sea. The third is at Arequipa, an im-



portant city in Peru, 7000 ft. above the level of the sea, and, under the Peruvian railway system, the work is to be continued, and reach double that altitude. It sets out upon an ascent, to pass to the west of the Eastern Cordillera, and puts itself thus in connection with the famous lake of Titicaca and the entire Andine Bolivia, also with the great historic realm of the Incas, the ancient capital of Cuzco, and must reach a point at the breath-taking height of 14,000 ft. above the level of the sea—less than 4000 lower than the crater of Popocatepetl, and over 6000 ft. higher than the City of Mexico. The inspirations of the Peruvians are shown by these vast undertakings to be as grand as the traditional empire of their Incas, and as lofty as the sublime heights of their magnificent Cordilleras.

**EXPORTS OF RAILWAY IRON.**—Our exports of railway iron exhibit continued weakness. From 59,848 tons in January, 1872, they receded in January, 1873, to 56,233 tons, and in January, 1874, they further declined to 46,598 tons. There was a great contraction in the exports of our railway iron to the United States last month, a total of only 7444 tons having been attained, as compared with 27,838 tons in January, 1873, and 35,299 tons in January, 1872. There was some revival, however, in the demand for British India and Australia in January this year, those dependencies having taken 3506 tons and 6105 tons respectively. Our exports of railway iron increased in January to Belgium, France, Spain, Italy, Egypt, Brazil, Chili, British India, and Australia; but they decreased to Russia, Sweden and Norway, Germany, Holland, the United States, and Peru. The value of the railway iron exported from the United Kingdom in January was 632,342l., as compared with 624,860l. in January, 1873, and 542,535l. in January, 1872.

**TURKISH FINANCE.**—Turkey wants more money, which could readily be obtained, even without exorbitant interest, if there were any confidence in the security or the administration of her finances, and not only in the desire but the actual efforts to improve and develop her vast indigenous resources. The Sublime Porte has suggested to the Council of Foreign Bondholders, a recognised and influential corporate body, that it desires the establishment of a Budget Commission, to be charged with the financial arrangements and administration within certain limits. Why is this desire not promptly acted upon, for the interests of European capitalists as well as Turkey itself? Such an honest and impartial administration would soon raise the credit of Turkey in Europe, give confidence to those desirous of aiding its progress, and rapidly develop its latent resources. Can fit and proper men not be found to act on such a commission? Could not Mr. de Roubaix, who is so well acquainted with Turkey, be induced to act as President, and devote his experience and energies to the duties? No man has had more extensive financial experience, filling, as he has done, all the most important posts in the Cape Colony, whilst his position as Consul General for Turkey there, and his repeated official visits to Constantinople, point him out as one whose opinion and judgment would carry weight with all parties.

#### REPORT FROM CORNWALL.

Feb. 19.—One can hardly exaggerate the gloomy aspect of all matters connected with tin mining at the present moment. At the North Roskear meeting it was stated that if things were long to continue as they now are, the result would be that not half-a-dozen of our tin mines would pay cost, and, strong as that statement was, there is too much reason to fear that it is uncomfortably near the truth. We are in a state of panic, which would be even worse than it is were it not for the fact that the very suddenness of the blow has deadened all activity. Go where one will, however, the same story is heard of abandonment and discharge. Unquestionably, six months of the present condition of affairs would shut up half the tin mines now at work. Operating upon productive points only, though it may stave off the evil day, and in the case of a merely temporary depression may enable a mine to tide over the difficult period, is a very perilous and risky thing. No mine can have anything like permanent success in which exploration and realisation do not go hand in hand; and there is too much reason to fear that in a large majority of cases exploration has been reduced to a minimum already.

What, then, are our prospects? Black enough to all appearance. It has been stated, and this evidently is to be taken as representing the smelters' view of the question:—

"The tin smelters held a meeting a few days back, at which nearly a dozen smelting firms were represented. They discussed and talked over very seriously the present low prices of tin, and resolved, as far as they could, to do their utmost to keep prices up, and, if possible, not to give less than 98s. for common, and 100s. for superior common. Some mines have considerable stocks of tin. The smelters say they almost hope that the ore will not be offered to them just now, as they have more than they know what to do with. They have not had so much in stock for a long time, but the present demand for the article is so small that they must hold their stocks till there is a more open market. The prospects are very gloomy."

This may be so, but, unfortunately, there has been so much of the old cry of "wolf, wolf," about the proceedings of the smelters in times past that any statement of this kind is taken with more than the proverbial grain of salt. We know that the metal market is in a disorganised state, we know that there has been no very material falling off in the produce of Cornish tin, we know that the import from Australia has increased, we do not know that the supply is far in excess of the demand, and even if we did, then came the question how long at present prices that would continue to be the case? Or to put it in another form—how long will the alluvial deposits of Australia pay? Directly they either become exhausted, or the cost of working exceeds the return to be obtained in England, the balance must turn in our favour. Cornish tin mines could hold their own against the competition of mines elsewhere, but they are over heavily handicapped as against stream works. These, the most vital points whereupon we could be informed, are just those respecting which we can get no satisfactory—no reliable—information.

The one thing that now appears to be abundantly clear is this, that if only a tithe of the rumours that one hears are fulfilled there will be before long such a decrease in the production of Cornish tin as will equalise any preponderance of supply over demand, presuming that such, pure and simple, is the cause of the present depression. Some of the weak must go the wall, but a good deal depends upon the way in which those that are yet strong endeavour to stem the tide.

Since the general abolition of the five-week's month there has been a disposition in some quarters to set everything that happens down to its account; and we find it brought up again now. How often does it require to be pointed out that it is either a question of wages or a question of account? If it is a question of wages, that will be governed by the market price of the day, and the mere mode of reckoning has nothing to do with its effect upon mining interests. As a question of account, it may be granted that in but a few instances it has had an injurious effect. But why? Simply because the burden of the thirteenth month's extra cost has been thrown upon one quarter of the year, instead of being apportioned for estimate as the year went on, and only the fair balance left to be cleared at its finish.

What with the discharges that are taking place and those that are imminent, there is not likely to be any scarcity of labour for a while to come. There is by no means the same disposition to emigrate that there was when the miners might have done well, but were really perishing because the amount of work done was so disproportionate to the establishment charges. Nor is there the same inclination to migrate to the North of England. Experience has taught hundreds that they were better off in Cornwall. Only this week one of the repentant writes:—

Allow me to warn my neighbours of Redruth and its vicinity against coming to Lancashire cotton and wool factories to serve the masters for any specified time, unless they agree for certain wages before they leave Cornwall. As a piece of work and wages it is nothing like it is represented by the agent of the above-mentioned masters. I will give you some instances of the wages of those that came up here in December last. One is a man about 40 years of age, who worked as a shaftmen in one of the largest mines in the neighbourhood of Redruth, and is now working for 16s. per week; and two others, about 20 years of age, one worked at round boulders in one of the Cornish tin mines. One of these young men had 3l. per month at home, and is now working for 12s. per week. Another had 3l. 10s. per month, and is now working for 12s. per week. We go to work at six in the morning, at half-past eight o'clock we stop half-an-hour to take lunch, we have an hour at dinner, and leave off at six in the evening, so it is what we call in Cornwall twelve hours course, and we were never driven so much by our agents in Cornwall as we are in Lancashire. If we are only ten minutes behind we are checked for it, nor can we leave off ten minutes before six without being checked.

Under ordinary circumstances, we should be inclined to say that the quantity of labour set free by the abandonment of some mines, and the restriction of operations in others, would be a good thing for those that remain, for there are mines that would pay handsomely on the three-shift that on one would be a dead loss, and on two would only clear expenses. But if the supply of tin really ex-

ceeds the demand this would not be so certainly the case; and, as we have said, upon that point there is no assurance. Probably the iron mines will gain, and so will the clay district, because however black the prospects may be elsewhere here they are bright enough. The demand for clay increases, and the business flourishes. The tonnage of the Great Western Docks at Plymouth has increased since 1864 from 348,904 tons to 445,152 tons in 1873, and the receipts from 9223l. to 20,325l. This is due in no small degree to the large quantities of china-clay that are now being sent away from these docks.

We are reminded of the fact that granite is another of the products of Cornwall that is doing well, by the occurrence of a melancholy accident at the Maen Granite Quarry, near Penryn. Three holes were charged, one with 7 lbs. of powder, the fuse was attached, and the men retired. They waited until an explosion occurred, and it being thought that all the charges had gone off they hastened to the spot, thinking to see some hundreds of tons of granite removed. Unfortunately, the first charge of 7 lbs. now exploded, and John Pascoe, aged 45 years, a single man, who was standing opposite the hole, was blown into pieces, as from the mouth of a cannon. The unfortunate man's legs were found some distance from the hole, whilst in an opposite direction his body and head were deeply imbedded in a lot of rubbish. Death must have been instantaneous. William Symons, who was standing near Pascoe, was so seriously injured about the eyes that it is feared he will lose his sight, besides which he has severe bruises and cuts about his body. All the other men are injured, more or less, and many wonderful escapes are mentioned. One man had the side of his trousers on the left leg blown away, as if cut with scissors.

Large quantities of copper and iron ores continue to arrive at the port of Barnstaple for shipment to South Wales. The greater bulk of the mineral is from the Bampfylde Mine, at Northmolton, and the quality of the ores is of a high class. Some iron ores, of the red hematite class, is being taken from Sir Arthur Chichester's lands at Bratton Fleming, about seven miles to the east of Barnstaple, but the lode in that district has not proved so rich as in other parts of North Devon. A few years ago no one thought of searching for iron in North Devon.

#### REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Feb. 19.—The Iron Trade of South Staffordshire is even more depressed than reported last week, and in some cases prices have given way. All-mine pig of good brands, which at the commencement of the quarter stood at 7l. to 7l. 10s. per ton, are this week quoted 6l. 15s. to 7l., with proportionate rates for part-nine and cinder iron. Orders are scarce, and it is not improbable that several blast-furnaces in various parts of the district will shortly be blown out. The demand for finished iron is very quiet, and the mills and forges are as a rule only running about half time. A special meeting of the Ironmasters' Association was held in Wolverhampton on Monday, to consider the report and the resolutions adopted at a recent meeting of the sheet-iron makers, in reference to a modification of the scale of prices for all sheet-iron. After some discussion, it was decided that the report and resolutions could not be accepted in their entirety, and a committee was appointed to prepare another report and revised list for a future meeting. Selling prices for finished iron of most leading classes are very irregular, bars ranging from 11l. 10s. to 14l. per ton. In the present state of the demand, however, the top quotation named may be regarded as little more than nominal, and obtainable only by one or two exceptionally favoured firms. Sheets (singles) are 5s. per ton easier for some qualities than the price ruling a fortnight ago, but makers of very best sheets are able to realise full list rates. Galvanised roofing sheets command only a quiet sale, but the leading firms continue to quote on the basis of 25l. per ton, ex package, for 24 gauge corrugated. It has been arranged to hold another meeting of the Iron Trade Association in Birmingham next week, at which the sheet-iron makers will propose the following modified advance in the price of that class of iron:—18 to 19 w.g., 10s. extra; 10s. extra per gauge up to 27 w.g.; and 20s. extra for 28 to 30 w.g. At Birmingham to-day there was a drooping market, and buyers were very cautious in their operations. It was reported that Mr. Colborn, the Barber's Field Company, and the Tame Company, Bilston, have each blown out one blast-furnace, and that other firms are preparing to follow suit.

The South Staffordshire Coal Trade is very quiet, the collieries as a rule being in operation half time. No change in prices has yet been declared by members of the Coal Trade Association, but private firms have taken off another 1s. per ton, making present prices 5s. per ton below the standard ruling a couple of months ago. The demand for argillaceous ironstone is well sustained at 25s. to 26s. for raw, and 10s. extra for calcined samples. Limestone is firm at the advance of 6d. per ton.

The Iron Trade of North Staffordshire is without much feature since our last report. If anything, its general condition, and also that of the coal trade, is better here than in the south part of the county; but there is in many branches much cause for complaint. Iron ores are in request, and last week's prices are very fairly sustained. South Staffordshire is a tolerably good customer for the iron ores of this district.

The Bentley Colliery, near Walsall, has commenced operations, and the ironstone brought to bank this week is pronounced of very fair quality. The adjacent new plant of Messrs. John Bagnall and Sons (Limited) will very soon commence to wind coal, all the machinery and apparatus being now fixed.

The quotations on the Birmingham Stock Exchange for shares in local coal and iron companies include the following:—Chillington Iron, 73 sellers; John Bagnall and Sons (Limited), 94; Sandwell Park Colliery Company, 250; Cannock and Huntington Colliery Company, 1-16th prem.; Patent Shaft and Axle Company, 63 prem.; Patent Nut and Bolt Company, 33 prem.; Oldbury Carriage, 24 prem.; Birmingham Wagon, 18 buyers; and Gloucester Wagon, 143 buyers.

#### REPORT FROM SCOTLAND.

Feb. 18.—Our Market continues very flat, and has receded from 98s. 6d., which was the highest price on Wednesday last, to 90s. 9d. this morning, from which a reaction took place, and this afternoon closes buyers 91s. 9d., sellers 92s. We subjoin a list of prices of makers' iron, but in the present unsettled state of the Warrant Market they must be considered merely nominal:—

	No. 1.	No. 2.
Gartsherrie at Glasgow (deliverable alongside).....	105s. 0d.	97s. 0d.
Coltness ditto ditto.....	108 0	97 6
Summerlee ditto ditto.....	102 6	95 0
Carnbroe ditto ditto.....	100 0	97 0
Monkland ditto ditto.....	95 6	93 6
Clyde ditto ditto.....	95 6	93 6
Govan, at Broomielaw ditto.....	95 6	93 6
Langloan, at Port Dundas ditto.....	107 6	97 6
Calder ditto ditto.....	105 0	95 0
Glengarnock, at Ardrossan ditto.....	102 3	98 0
Eglinton ditto ditto.....	97 0	95 0
Dalmellington ditto ditto.....	98 0	96 0
Carron, at Grangemouth, selected, ditto.....	107 6	—
Shotts, at Leith ditto.....	105 0	97 6
Kinnell, at Boness ditto.....	100 0	94 0
SHIPMENTS.		
Week ending Feb. 15, 1873.....	Tons	8,050
Week ending Feb. 14, 1874.....	Tons	7,138
Decrease.....		912
Total decrease since Dec. 25, 1873.....		23,428
Imports of Middlesbrough pig-iron into Grangemouth:—		
Week ending Feb. 14, 1874.....	Tons	3,180
Week ending Feb. 15, 1873.....	Tons	300
Increase.....		2,780
Total increase for 1874.....		9,694

The receding state of the Warrant Market is causing less activity to be manifested in ore, both of home and foreign production, the latter especially being in short supply, with no hope of Spanish mines yielding much till the intestine struggle in that unhappy country is brought to an end. There is a tendency amongst Scotch smelters to reduce the number of furnaces somewhat, rather than permit the price of ore to advance further. The trade in malleable iron continues languid, with keen competition for the small parcels offering, which is weakening prices without any profitable result. The shipments for the week are greatly diminished, and makers are not so hopeful of the future as they were. Some of our ironfounders are busy casting flanged iron pipes for the Gartsherrie coal-cutting machines. Messrs. Edington and Sons have on hand contracts for several miles of pipes for various firms, who are introducing these

machines into their pits, as pipes are required to convey the air from the air compressor to the coal-cutter at the working face.

The shipping demand for coal has rather fallen off, as the returns show; and, owing to a prevailing inactivity in our home trade, the demand from this source has also been limited. The shipments for the week just ended are reported at 26,143 tons, while in the corresponding week last year they reached 30,998 tons. Prices have been reduced 6d. to 1s. a ton here, and about the same in the Ayrshire area. On the East Coast trade is remarkably flat, with but few vessels waiting at either of the Forth ports to load coal. Stocks in Fifeshire are larger than they have been for a long time, and prices are falling.

A very general movement has been made in reducing the miners' wages about 1s. a day, which has led to mass meetings and conferences, and adjournments, and demonstrations by processions, with and without brass bands, but these charms will not work, nor arrest the accomplishment of the inevitable.

**NEW MINERAL FIELD.**—Bathgate has become renowned throughout the world for the valuable mineral resources which have been developed in its more immediate neighbourhood during the last 30 years, combined with the numerous and important mineral oil works, of which it may be denominated the centre. Capitalists, coal, iron, and oil companies have not been idle during the last few years in exploring, by means of mining engineers and staffs of borers, the probable mineral wealth of every estate in the surrounding district. The estate of Foulshields, belonging to Mr. Thomas Maxwell Durham, has been tested, and the Drumpellier Colliery Company have leased the minerals. Shanking operations commenced about May last year, and at the depth of 27 fathoms a 3-foot seam of fine clean black coal was reached. This seam has a fine hard sandstone roof, and is 8 in. thicker than what was presented by the bore journal. Three other seams of 3½ ft., 2½ ft., and 5 ft. are expected to be found at a further depth of 15, 3, and 7 fathoms respectively. The mineral field on this estate extends over 400 square acres, so that if operations go on as projected the result may prove an important increase to the mineral resources of the country.

At the Miners' Conference held in Glasgow, on Thursday, Mr. McDonald, M.P., directed attention to the sanitary condition of mines; and having explained that he was about to receive reports on the subject from the English delegates, intimated that, should he find these reports unfavourable, he would bring them under the attention of Mr. Disraeli, the "minister who declared that one of the great objects of legislation should be the sanitary condition of the people."

#### TRADE OF THE TYNE AND WEAR.

Feb. 19.—The general Coal Trade shows evident signs of weakness, so that those who have not secured contracts may have to submit to a further reduction in price shortly. The demand for house and gas coals is much depressed, and stocks are accumulating at many works. Good gas coals can now be had at 15s. per ton. Steam coal continues in pretty good demand, and as the spring export trade is expected to open shortly first-class coals of this sort are still held at 20s. per ton. The strike of the trimmers at the Tyne Dock has checked the shipments of coal there very much during the past week, and there is no prospect at present of a solution of the difficulty between them and their employers. The demand for coke continues, and as the trade is the backbone of the South Durham fuel trade there is no lack of work for most of the miners in South Durham. Good coke is still sold at 20s. up to 32s. per ton, the demand being very strong both for South and West Cumberland.

Many of the new works are now far advanced towards completion, the shafts having been sunk to the coal seams, and as no difficulty is felt in getting hands to man those works the output is pretty certain to be largely increased during the present year.

It is worthy of notice that the manufacture of peat has been commenced in Teesdale, the London Lead Mining Company having entered upon the manufacture by means of Clayton's process, and it is stated that the cost of production, including interest on plant, is only 6s. 8d. per ton. It appears that this company are now supplying their workmen with the compressed peat at 10s. per ton, and they are also manufacturing gas with this peat, the yield being from 6000 to 8000 cubic feet of gas per ton. Cleveland has supplies of peat which are practically inexhaustible, and this manufacture may become of paramount importance, especially if peat should be introduced into the iron manufacture, which is extremely probable, as it appears to be very suitable for the purpose, owing to its freedom from sulphur. It is stated that peat fuel can be converted into charcoal at a cost of about 25s. per ton, which would enable it to be sold for 30s. per ton, about the same cost as best coke at present.

The Iron Trade continues very quiet, and pig is still falling in price; pigs, No. 3, are now sold at 82s. per ton. The demand for finished iron has, however, improved, and most of the rail mills are again in full operation. The foundries are pretty well employed, and engineers are generally very busy, the demand for marine and locomotive engines being extremely good.

The Coal Trade in Cumberland continues very quiet. The strike at the Aspatia Colliery has terminated by the men going in on the masters' terms, after a fruitless and unreasonable strike of eight weeks duration. The collieries at Dearham, belonging to Messrs. Walker, have been taken over by a limited company, with a capital of 100,000l., and great improvements are to be made forthwith. A new shaft is to be sunk with a view to increase the output, and a number of coke-ovens are to be erected, for the purpose of converting all the small coal into coke. The royalty is extensive, comprising upwards of 1100 acres, and there are several good seams of coal proved and partially worked, and also others known to exist, which will be sunk to and worked eventually.

**NORTHERN INSTITUTE OF MINING AND MECHANICAL ENGINEERS.**—There was a large attendance of members at the meeting on Saturday, the chair being taken by Mr. I. L. Bell, M.P., senior vice-president. A number of new members were elected. The secretary, Mr. Bunning, stated that he had paid a visit to Cardiff for the purpose of arranging for a joint meeting of this Institute with the South Wales Institute. All the preliminaries had been settled, and the meeting will be held in July.

Mr. Lebour read a paper "On Further researches in the Natural Pits of Hainaut, with Remarks on their Probable Origin." Mr. J. B. Simpson stated some new facts he had obtained in relation to the same subject. Some discussion took place on this curious subject.

The paper of Mr. Hurd "On Air-Compressing Machinery and Self-Acting Coal Cutting Machinery for straight work, long-wall, and pillar and stall work," attracted much attention. The papers were well illustrated by plans, &c., and there is little doubt that the coal-cutting machine is quite suitable to perform all that is claimed for it, and that is to cut the coal not only where the coal is worked by long wall, which has until lately been considered the only system under which machines can be advantageously employed, but also under any of the systems now pursued in working coal—that is, by pillar and stall, &c. We may, therefore, expect that working coal by machines will now make some progress here, and we may remark that the engines employed at Hetton are doing good work.

The paper, translated from the French by the secretary, "On Raising Coals from great depths by Atmospheric Pressure," on the system of M. Z. Blanchet, brought out a most interesting discussion. The subject is one of the greatest importance in connection with the future of coal mining, as it bears directly on the question of raising coal from great depths, which must be solved at no distant date if the supply of coal has to be kept up. By this system ropes, pulleys, and the winding-engine are entirely dispensed with. An iron tube is put into the shaft, and inside the iron tube a cage is worked similar to the cages generally employed; an air-tight piston is fitted at top and bottom of this cage, and as the air is extracted from the tube by an engine placed at the surface the pistons, with the cage and loaded coal tubs, ascend at a great speed. At Epinae, in the Hottelguez pit a tube is to be inserted, 63 in. in diameter, and nine tubs are to be drawn at one time on the cage up this tube, carrying 4½ tons of coal. Of course the descent of the pistons and cage is easily effected. The apparatus for doing this and for loading and unloading the cages appears to be at once ingenious and perfectly effective. The subject is certainly of great importance, as it appears



to a great extent to meet the difficulties met with in raising coals from great depths, as the tube can be continued to any depth, thus raising the coals at one lift, and the action of the air-pumps also extracts a large quantity of air, and thus provides for the ventilation of the mine.

The new safety-lamp invented by Mr. Emerson Bainbridge has attracted much attention here. It is an ingenious lamp, and it is claimed for it that it is perfectly safe from explosion, no matter what speed the current of air has in which it is placed. It has, however, been objected to by some engineers that only a single glass tube is placed between the flame and the outward air; if this objection could be removed it is almost placed beyond a doubt that the lamp is well worthy of the most careful attention.

**INCREASED VALUATION OF NORTHUMBERLAND COLLIERIES.**—Mr. T. F. Hedley, valuer, Sunderland, has just completed his valuation for the purposes of assessment of the following collieries in the Tynemouth Union, in the county of Northumberland:—

Colliery.	Present assessment.	New valuation.
Dudley .....	£2,230	£4,967
Cramlington .....	3,063	6,933
Hartford .....	1,880	7,532
Seaton Delaine .....	6,806	15,246
Burdon .....	3,107	4,045
Walker .....	2,644	5,873
Belside .....	5,999	11,136
Killingworth .....	1,839	2,600
East Holywell .....	2,496	6,645
Seghill .....	3,930	7,822
Cowpen .....	1,693	8,004
Newsham .....	3,670	4,769
Rockworth .....	4,483	8,456
Preston .....	206	864
West Cramlington .....	2,612	3,818
Seaton .....	704	1,206
Total .....	£47,562	£99,866

From the above it will be seen that the new valuation shows an increase of 52,304.

#### REPORT FROM MONMOUTH AND SOUTH WALES.

Feb. 9.—Business is now again being resumed throughout the district, all the elections being over, and the excitement which they created having subsided. The market has, therefore, been more numerously attended this week, and something like renewed life has been thrown into trade, but it cannot be said that it has yet resulted in any large amount of business being done. There has been a somewhat better enquiry for rails and some other descriptions of finished iron, but the enquiries have not resulted in many new orders being placed. It is an indication, nevertheless, that stocks are low in buyers' hands, and that orders must be given out sooner or later. If, therefore, purchasers are still able to reserve transactions a little longer, it cannot be long before they will have to give out specifications without reserve. The year has not yet far advanced, and consequently many of the sources of demand which have been calculated on have not yet been opened up, but another week or two may bring about quite a different state of things. When shipping to Northern Europe can be resumed the Russian demand is almost certain to expand considerably, and this will give additional firmness to the trade, which will in all probability cause more anxiety to place orders from other quarters. So with these prospects before them, it is somewhat gratifying to find that manufacturers still entertain the belief that there are good times in store for the trade, and it is this belief alone that has induced them to keep on their works as they have of late. Rail orders are still scarce, and many of the mills have been at a standstill, or only partially employed, for some weeks past, and many of the furnaces also are out of blast, but still the hands are kept on, though the work they do is neither so remunerative to themselves or so profitable to their employers as that which they do in more prosperous times. But whenever the expected revival in trade takes place skilled hands will not be too plentiful, and, therefore, the ironmasters of this district do all they can to find employment for their old workmen during this period of inactivity. There is no nominal alteration in quotations for railway iron, but there appear to be some signs of the cost of manufacture being reduced to some extent at least. Raw materials have been declining in value of late, and fuel is also becoming cheaper. Although business does not seem to have improved appreciably, there has been an increase in the quantity of iron cleared from the district during the past week accompanied with several previous weeks. There have been 190 tons rail exported to Cadiz; 270 tons rail and bundle iron to Messina; 790 tons rails to Sebastopol; 1200 tons rails to Brazil; 53 tons rail to Naples; 76 tons rail to Paysandú; 580 tons rails to Rio de Janeiro; and 1000 tons and 299 tons bar to Talcabano.

It was mentioned some time ago that under the new management of the Nant-y-Glo and Blaenau Company's works more attention would be given to the development of the company's mineral property than formerly, with the view of sending more coal to market and less iron, the former having become the more remunerative, and that operations in iron making would be curtailed. This course appears now to be carried out somewhat more extensively than was expected, and a large number of men at Nant-y-Glo who were employed at the furnaces have received notice that all contracts between themselves and their employers will cease at the end of the month.

The position of the Steam Coal Trade continues much about the same, the demand on account of all the leading foreign markets being brisk, and sellers are able still to maintain quotations without any great difficulty. A somewhat different state of things is, however, to be noticed in the house coal trade. The demand for these qualities has fluctuated a good deal with the changes in the weather, but through all there appears to be a gradual downward tendency. Prices are not generally so high as they were, but proprietors prefer seeing their pits only half employed than submit to any material reduction in prices.

The local railways benefited considerably by the prosperous state of the coal trade during the latter half of 1873. The directors of the Taff Vale are going to recommend a dividend at the rate of 10 per cent. per annum, with a bonus of 1 per cent. for the last half-year; and the Monmouthshire will pay at the rate of 8 per cent. per annum for the same period.

#### REPORT FROM DERBYSHIRE AND YORKSHIRE.

Feb. 19.—Work continues steady at the lead mines at Eyam, Wirksworth, and the Peak districts, but there has been no material increase of production for some time, the quantity of ore being raised averaging not quite 500 tons a month. There is a very large number of mines, it may be said, but many of them evidently pay very little more than their working expenses. The Coal Trade is still very quiet, and now that the men at Clay Cross have submitted to a reduction of their wages it is evident that the miners at other places will have to do likewise. The colliery proprietors in the Ekeington district have given notice that they will reduce the wages of their miners 20 per cent. The movement thus commenced there can be very little doubt will now extend in all directions. The tonnage of coal going to the metropolis is considerably less than the average, whilst prices have fallen considerably of late, and have by no means yet reached their lowest point. There is also not so much doing to Peterborough and the Eastern Counties, or to the Midland districts. Affairs are going on more satisfactorily in the Donfield and Easton districts, a good deal of coal going from the latter to the South. There is a new colliery about to be sunk by a limited company near to Ilkeston, whilst several are now in course of sinking to the south of that place. The Iron Trade continues to be well maintained, especially as regards foundry material and rails and girders. The Messrs. Lucas have been doing very well of late in light malleable castings, as well as in steel spades and shovels. The Bessemer Works at the same place have also been doing a good business in rails.

The Sheffield Trades are without much change, and in several branches the men continue to be only partially employed. The plate mills have been running very well, a good many of the heavy armour plates being for shipment to continental powers. The Bessemer works are going on as usual, but at Sir J. Brown's the output has increased, as many of the men who were out on strike against a reduction of wages have resumed work. In crucible steel there is no improvement worth mentioning, and at some places the men are only employed four or five days a week. Some branches of the cutlery trade are rather better off for orders, whilst saws and files are in anything but active request. Fuel for manufacturing purposes is rather easier to purchase, but it is expected to come down considerably lower, which cannot help leading to a marked improvement in the steel and iron trades generally. The coal trade of South Yorkshire is in a very languid state, although prices have come down very much of late, but colliery proprietors state that the consumption is such that prices in no way affect it. There is not so much doing by the leading collieries raising silkstone coal with the metropolis, whilst the export trade has also fallen off. The question of a reduction of wages is now being taken of as inevitable, for coal is now from 7s. to 8s. per ton lower than it was this time last year. The Midland Institute of Mining Engineers have not taken the old post-office building as a place of meeting, which was offered them for 3000l. Indeed, it appears to be the desire of many of the members that the headquarters should be at Wakefield, and a meeting is to be held in that town to-morrow to consider the matter.

It appears that the Oaks Colliery Fund will show a surplus of at least 15,000l., after all the widows and children are fully provided for. The children who have been on the fund are about to be supplied each with a handsome copy of the bible bound in Morocco, with a suitable inscription affixed inside. The number of copies to be distributed is about 30, the cost being upwards of 1000l.

**NEW MOTIVE-POWER.**—Mr. F. HURD, engineer, and Mr. E. T. HURD, colliery proprietors of Wakefield, have invented a new mode of generating steam and expanding gases combined, for obtaining motive power; also in de-vaporising steam, and in the machinery or apparatus employed therein. This new

motive-power generator consists of a fire receptacle placed in the interior of the water space of a steam-boiler of any form, also a self-acting breech loading feed and discharge apparatus, also in an apparatus to evaporise the exhaust steam, also in an apparatus to let off the gases from the furnace with the steam, also in the apparatus for supplying air to the furnace.

#### AUSTRALIAN TIN—THE TIN-BEARING COUNTRY, NEW ENGLAND.

More than twenty years have elapsed since the Rev. W. B. CLARKE, the most earnest and energetic promoter of the development of the mineral resources of New South Wales, drew the attention of the Colonial Secretary to the probable occurrence of extensive deposits of tin ore, by stating in his official report (May 7, 1853) that "wolfram and oxide of tin with tourmaline occur near Dundee and in Paradise Creek, and it is probable that this ore of tin is plentifully distributed in the alluvia of other tracts, as I have found it amidst the spinelle rubies, oriental emeralds, sapphires, and other gems of the detritus from granite;" yet until quite recently we heard nothing of commercial importance with regard to the tin deposits, and the idea of their being extensive was generally discredited. But the statistics of our tin imports from Australia must have entirely dispelled the illusion and sufficed to prove that the working of tin ore will not only form an important addition to the vast mineral resources of New South Wales, but exercise a material influence upon the price of tin in this country. Mr. CLARKE's report dwelling more particularly on the leading geological features of the northern districts, Mr. Licensed Surveyor Wilkinson in his report,\* having the benefit of his previous researches, gives a more detailed description of that portion of the tin-bearing country which lies chiefly to the south and east and within a radius of about 25 miles from Inverell. The principal tin mines within this area are those on Cope's Creek, Middle Creek, and on the McIntyre river at Elmore and Newstead. The general aspect of the intervening country is very uneven and rough, consisting of rugged hills more or less thickly timbered, and rocky gulleys and creeks, which in places have their channels cut into wild precipitous ravines, as on Lower Cope's Creek, where also several fine waterfalls may be seen.

The "recent" deposits are of great economic importance, both to the agriculturist and to the miner. In the Cornie Tin Mine, Cope's Creek, eight men have washed out 6 to 8 cwt. of stream tin per day. Further up Cope's Creek, in the Lyngarra Mine, at Capt. Swinton's station, and in the Victoria Tin Mine, even richer yields have been obtained. This locality, Mr. WILKINSON believes, contains the richest and most permanent of the recent tin deposits in the district. On Middle Creek about 30 tons of ore, worth 50l. to 60l. per ton, were obtained by 15 men in three months. These are, perhaps, the most easily worked of all the tin deposits, but occurring, as they do, along the creek beds the mining operations are likely to be impeded by floods, of which miners have had discouraging experience during the past summer months. Gold has been found, though not in sufficient quantity to pay, in all the tin-bearing deposits. Sapphires are of common occurrence, some of them are of large size and good colour, and work up to 15l. or 20l.; the miners, however, pay but little attention to the saving of them. The enormous amount of earthy matter annually brought down by streams and re-deposited is very apparent.

The Pleistocene formation includes those drift deposits forming alluvial flats, which are found more or less in all the valleys, and through which most of the present streams have worn their channels. In the creeks and gulleys traversing the granite country the alluvial deposits are all tin-bearing; but being often of considerable thickness, sometimes 20 ft., they are not so easily worked, on account of the great amount of stripping required at the shallower and more recent drift along the beds of the creeks. At the Lady Emily Tin Mine, Cope's Creek, the Pleistocene drift, consisting of coarse rounded drift and yellow sandy clay, is about 16 feet thick; the wash-drift varies up to 5 ft. thick, and from it as much as 4 lbs. of stream tin to the dish has been obtained. As to the permanency of the yield of tin ore from these alluvial deposits it is impossible to speak with certainty; but even a cursory examination of Cope's Creek and its vicinity cannot but convince one that the tin-bearing ground as yet unworked will afford continuous and profitable employment to miners for some years. Besides the alluvia along the creeks, several rich patches of surfacing, from 1 to 4 feet thick, have in various places been opened, the wash-drift requiring but little stripping, and yielding from 15 to 30 lbs. of tin ore to the cartload of dirt. The richness of these surface deposits, together with the angular form of the tin ore, often indicate the proximity of lodes in the underlying granite, to the breaking up of which the supply of tin ore is due. Owing to these numerous tin veins, or lodes, the surface soil where derived from the granite has been found almost everywhere to contain tin ore; it may, therefore, reasonably be believed that these rich patches of surfacing are but a few amongst the many that will yet be discovered and profitably worked.

Next in order of sequence is the basaltic trap, a rock of but little interest to the miner. Passing from the Pliocene to the Miocene, Mr. WILKINSON remarks that the rocks of this period are of much economic importance, on account of the valuable deposits of stream tin which some of them contain. Certain of these rocks are full of impressions of leaves and plant stems, which are believed to be of lower Miocene age; but I shall refer to these hereafter. The formation must have been of considerable thickness, and seems to have once covered nearly the whole district, for it is found on the summits of hills, and again filling some of the intervening depressions. The upper part consists of sandy concretionary ironstone, which sometimes assumes a pisolitic structure, from the small ferruginous concretions composing the mass. Where this is the case the surface of the ground is often strewn with small round ironstone pebbles of the size of a pea. The ironstone is now chiefly known in outliers forming those "red hills," as they are locally called, which constitute such marked features in the country between the Macintyre and Cope's Creek. Unfolding the ironstone are red and white sandy clays, and beneath these water-worn drift and conglomerates, the latter usually occupying the sides and bottoms of the ancient valleys, and containing the tin-bearing deposits. Owing to the enormous denudation this formation has suffered, the overlying clays and ironstones have in places been entirely removed, leaving the stanniferous gravels exposed near the present surface, and therefore easily accessible to the miner. Such is the case at the Elmore, Stannifer, and other important tin mines.

The granite formation is of special interest, chiefly on account of its tin lodes, and from its having been the original source of the stream tin. There are granites of at least two eruptions, but both are affected by the same system of joints. Quartz veins occasionally several feet thick, as at Rex Tin Mine, Middle Creek, are frequent in the granite. The general strike of these is between E. 5° N., and N. E., while others have a meridional strike. The latter are often much broken by faults. As instances of this, Mr. WILKINSON gives two sketches, one from near the Cope Harding Mine the other near the Rex Tin Mine. At the Buchart Tin Mine, next to the Inverell Tin Mine, near Cope's Creek, a quantity of fine lumps of solid tin ore were obtained from the cap of a lode. One of these pieces weighed 57 lbs. The ore is of the black variety, and, excepting a little quartz, is very free from foreign matter. An assay of it by C. WATT, of Sydney, gave 76 per cent. tin. The tin ore at the Bolitho Mine (generally called "Simone's") runs in irregular veins, forming a felspathic dyke about 18 in. wide, and dipping nearly vertical. Occasionally these veins are of unite, forming an almost solid mass of ore, and again thin out and are lost for a time. Several large blocks of the veinstone—one weighing nearly ½ ton—were raised, the greater part of which consisted of tin ore. A vein of solid ore, 4 in. thick, has been opened in the Boundary Tin Mine. Fluor-spar occurs in this lode, and also a greenish yellow steatitic clay. A dyke of eurtite granite, bearing E. 15° N., containing tin veins, has been discovered at the Bismarck Tin Mine, south of Cope's Creek. The tin ore is associated with quartz veins, from a mere string to 3 in. thick, and traversing the dyke in various directions, forming a sort of network of veins. The ore is usually crystallised in square prisms, lining the sides of the fissure, with the quartz filling the centre; sometimes, however, the whole vein makes into quartz, with separate tin crystals scattered through it. Some fine crystals of quartz have been obtained from the Albion Tin Mine, Cope's Creek. These crystals are studded on the outside as well as within with black crystals of cassiterite, suggesting that the tin silica was held in solution, and that they both crystallised therefrom at the same time. About 2 miles N.E. from Capt. SWINTON's station are several small tin lodes, associated with veins of quartz and eurtite, and traversing in an E.N.E. direction soft red granite. Other similar small tin lodes occur in various parts of the Cope's Creek district.

On the Bow yard gully, between Tiegna and the Grove Station, Messrs. CAN-  
\* Ordered by the Legislative Assembly to be printed Oct. 26, 1873. London: Trubner and Co., Ludgate Hill.

NING and HUTTON have discovered at In lode, which differs from the lodes above described in its having a northerly strike; but this may be only a local variation, as it occurs in a broad belt of eurtite granite, in which it may have connection with other lodes. Near the surface this lode is only a few inches thick, but it increases to a width of nearly 1 ft., of almost pure tin ore, at a depth of about 20 ft., where it is broken by a fault or slide. The ore has a loose granular texture, and sometimes occurs disseminated in grains through the enclosing rock, which consists of a whitish eurtite much broken by joints. For a few inches on each side of the lode the rock shows alternate vertical layers of quartz and felspar. Splendid samples of tin ore, in large crystals of ruby-red, amber, and other colours, have been obtained from the surface soil at the Pride of the Ranges and Pine Ridge Tin Mines, Lower Cope's Creek. Small nests of tin crystals have been found in the granite, but no defined lode.

Perhaps the richest mining area as yet discovered is that of the Elmore Company, situated about 12 miles east of the boundary of Inverell. It lies on the north-west side of the Macintyre River, and includes a granite range about 250 ft. in height and nearly two miles in length, dipping on all sides (save that towards the river, beyond which the rock extends a considerable distance) beneath basalt. The granite is micaceous, and rendered porphyritic by crystals of white orthoclase, which frequently reach several inches in size; bluish-grey oligoclase is also, though sparingly, associated. It is traversed by quartz veins several inches to above a foot in thickness, which contain cassiterite in fine druses, seams, and solitary crystals. Portions of these veins are highly micaceous, and represent, in fact, the rock called Gneiss, characteristic of tin-ore districts of Saxony and Bohemia. In the tin ore localities of the Beechworth Goldfield, Victoria, this rock occurs also in a similar manner, but the surrounding granite is there very fine grained and highly felspathic (eurtite), and rarely shows porphyritic texture. Of far greater importance, however, than these veins are dykes of a softer kind of granite, which consists, perhaps, for 75 per cent. of its mass of small finely greenish mica, and the remainder of quartz—felspar being very rarely observable. Through these micaceous dykes cassiterite is not only well distributed in implanted crystals, from the size of a pin's head to above that of a pea, but it occurs also in irregular veins of several inches thickness, and in nests and branches yielding lumps of nearly pure ore up to above 50 lbs. in weight.

Wolfram has been found at several places forming nests in the granite, but not in association with cassiterite. Touching the latter itself, it is mostly of a pitch-black colour, occasionally translucent brown and hyacinth-red, and from some places greenish, with a very pretty play of rays of red and yellow colour through it. Its crystalline form is rather simple as regards pyramidal planes; the prism is generally, however, highly modified. Twins like those from the Schlaggenwald mines are very abundant, and crystals perfectly developed all round, both twins and simple ones—the latter with 12-sided prism and one pyramid—are not rare amongst the ore washed from the drift. A crushing of over 100 tons of the micaceous rock gave almost 1 per cent. of ore; and from one of the quartz reefs, at a depth of about 80 ft., the stone yielded from about 3 to 10 per cent. of tin ore. As there are several similar quartz reefs on the ground, the future prospects of this mine may be considered very encouraging. The rock formation at the Newstead Tin Mines, which lies about three miles to the east, is of the same character as that of Elmore. It consists of a porphyritic granite, traversed by tin-bearing quartz reefs and irregular beds and isolated patches of micaceous rock. One of these small patches which I particularly noticed was about 18 in. in diameter, and thickly studded with crystals of tin ore. One of the quartz reefs has been opened, and contains, besides tin ore, iron and copper pyrites, green carbonate of copper, and wolfram. The reef is from 2 to 3 ft. thick, and bears about E.N.E. Very large crystals of quartz occur in it, some of which have crystals of tin enclosed within them similar to those previously described from the Albion Mine. The above remarks will also apply to the granite of the adjoining Karaula Tin Mine. All the granites of the district contain abundance of black tourmaline (schorl), which chiefly occurs in radiating masses, together with beautiful crystals, often of large size, of smoky quartz, in dense cavities in the rock.

In addition to the interesting physical features observable, the facts which the geology of the district of Inverell reveals have an important economic bearing. In the carboniferous formation the finding of "coal in some abundance" has been predicted. Coal would, no doubt, be a valuable acquisition to this tin-mining district. Mr. WILKINSON mentions the discovery of a number of diamonds on the Boral Creek, where he anticipates many more will be found, and their occurrence in various other parts of the district proves that they are pretty widely distributed. There seems but little doubt that they have been derived from the older Tertiary gravels, and this is in agreement with the observations of the late Prof. THOMSON and Mr. NORMAN TAYLOR on the Cudgewong Diamond Field. For the fullest information, however, on this subject, he refers to the valuable remarks of the Rev. Mr. CLARKE, "On the History of the Diamond in Australia and Foreign Countries," in his anniversary address to the Royal Society of New South Wales, May, 1872. As regards the tin-bearing resources of this district, its future prospects are, Mr. WILKINSON considers, very auspicious. The amount of tin ore raised during 1872 was about 800 tons. This yield would, doubtless, have been larger but for the wet spring season, and the unsteady working of the mines consequent on the excitement which the tin discoveries created. Should the weather be favourable, the yield during the present year will, he believes, exceed three times that of last; for, in the neighbourhood of Tiegna alone 50 tons of ore have lately been obtained in one week. It is, however, impossible to forecast accurately what quantity of tin ore may be annually raised. The valuable deposits of stream tin which both the recent and old Tertiary formations contain will, no doubt, take many years to work out; and these deposits which, at the high price of labour and with the present imperfect appliances for extracting the tin ore, will not now pay to work, will doubtless be developed in the future. The tin lodes as yet discovered have been described as having characters identical with those of the lodes of Cornwall. This fact alone should encourage the enterprise of the prospectors, and must also give assurance of the permanency and importance of tin mining in the district of Inverell. And seeing that the district described (that within a radius of 25 miles from Inverell) forms but a small portion of the stanniferous country of New South Wales and Queensland, we may readily conceive the future magnitude which the tin mining industry in these colonies is destined to attain; indeed, the annual yield from the Australian tin mine is, even at the present time, about equal to half that of all the old tin mining countries combined.

The sketches and sections which accompany the report add much to its interest, and cannot fail to be of great utility to those undertaking the development of the deposits. Mr. WILKINSON has evidently bestowed great care upon his survey whereon to base his report; and if the observations he has recorded be carefully attended to not only will the tin deposits be made to contribute largely to the wealth of the colony, but the diamonds, sapphires, and precious stones, which appear to be moderately abundant, will not, as hitherto, remain neglected.

#### COPPER ORES.

Date.	Mines.	Tons c. q. lb.	Price per ton.	Purchasers.
Jan. 25—	Caldbeck Fells .....	1 7 0 0	£18 10 0	John Bibby, Sons, & Co.
—	ditto .....	5 5 0 0	8 2 6	—
—	ditto .....	3 6 1 0	2 9 6	ditto
28—	Great Conistoun .....	3 5 3 0	6 6 6	ditto

#### COPPER ORES.

Sampled Feb. 4, and sold at the Royal Hotel, Truro, Feb. 19.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
South Caradon .....	90	£3 17 6	Glasgow Caradon .....	60	£4 2 6
ditto .....	60	17 6	ditto .....	60	4 5 0
ditto .....	50	7 7 6	ditto .....	52	2 18 6
ditto .....	67	5 14 0	Gunnislake (Clitters) .....	67	7 5 0
ditto .....	48	3 18 6	ditto .....	66	6 15 6
ditto .....	41	6 5 6	ditto .....	64	3 17 0
ditto .....	34	18 7 6	Bedford United .....	77	2 18 0
ditto .....	30	8 19 6	ditto .....	64	1 10 0
Marke Valley .....	65	2 15 6	ditto .....	45	5 8 6
ditto .....	55	2 15 0	East Caradon .....	52	4 18 6
ditto .....	50	0 11 6	ditto .....	50	4 15 0
ditto .....	47	4 1 6	ditto .....	43	6 0 0
ditto .....	35	6 7 0	Wheal Russell .....	55	3 18 0
ditto .....	17	9 0 0	Phonix .....	60	3 4 6
Hington Down .....	102	2 12 0	ditto .....	20	5 10 0
ditto .....	75	2 12 0	Duchy Great Consols .....	54	2 5 0
ditto .....	74	1 16 6	Wheal Friendship .....	16	6 0 0
Glasgow Caradon .....	73	4 17 6	Tin Valley .....	12	3 19 0

#### TOTAL PRODUCE.

South Caradon ..	419	£2644 13 0	East Caradon ..	145	£ 679 15 0
Marke Valley ..	314	1107 0 0	Wheal Russell ..	95	343 10 0
Hington Down ..	252	618 5 0	Phonix ..	80	455 0 0
Glasgow Caradon ..	250	1025 18 0	Duchy Great Con.	54	121 10 0
Gunnislake (Clit.)	197	1179 6 0	Wheal Friendship	16	103 4 0
Bedford United ..	186	565 7 0	Tin Valley ..	12	47 8 0

Average standard .....	£ 93 14 0	Average produce .....	75%
Average price per ton .....	£ 80		
Quantity of ore .....	2020	Quantity of fine copper 154 tons 4 cwt.	
Amount of money .....	£8890 16 0		
LAST SALE.—Average standard .....	£ 93 15 0	Average produce .....	75%
Standard of corresponding sale last month, £ 97 3 0—Produce, 7.			

#### COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons .....	3382½	£1435 4 0
P. Grenfell and Sons .....	154½	777 16 0
Nevill, Druce, and Co. ....	279	1110 11 6
Williams, Foster, and Co. ....	54½	300 14 2
Mason and Elkington .....	389	1089 14 0
Copper Miners' Company .....	329½	2249 13 2
Charles Lambert .....	76	197 12 0
Newton, Keates, and Co. ....	160	947 8 0
Sweetland, Tuttle, and Co. ....	239½	782 2 8
Total ..	2020	£8890 16 0

NO SALE on Thursday next, Feb. 26.

Copper Ores for sale on Thursday week, at Tabb's Hotel, Redruth.—Mines and parcels.—East Pool 276—West Seton 160—South Crofty 124—Trebarrah 41—West Rosebar 41—Doleath 33—West Basset 21—West Godolphin 12—Great Work 11.—Total, 719 tons.

**ON SALE.—MASSIVE CRUSHING MILL,** with two pairs of 24 in. rolls, in cast metal frame. Also, 20 yards of 1½ in. diameter FICIN WIRE WINDING ROPE. Address, "X. Y. Z., MINING JOURNAL OFFICE, 26, Fleet street, London.



## HARTLEPOOL IRONWORKS,

HARTLEPOOL, February 21st, 1874.

THE UNDERSIGNED BEG TO NOTIFY that, in consequence of ill-health, Mr. JOHN BOYD has RELINQUISHED their AGENCY, and that they have TRANSFERRED the SAME to MESSRS. G. BAILEY TOMS AND CO., 7A, LAURENCE POUNTNEY HILL, CANNON STREET, LONDON, E.C., whom they have appointed SOLE AGENTS, and to whom all applications for Railway Bar Iron should in future be addressed in order to receive prompt attention.

THOS. RICHARDSON AND SONS.

## TO DIRECTORS OF MINING COMPANIES, AND PROMOTERS.

A FIRM OF POSITION, in the heart of the City of London, having considerable experience in the Management of Companies, are prepared to UNDERTAKE the entire SECRETARIAL DUTIES of one good company, and find the use of offices, clerks, &c., for a fixed inclusive annual charge. This is a favourable opportunity for an established company desirous of reducing its expenses, or for a new company starting upon an economical scale.

Address, Secretary "A," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

## IN THE MATTER OF THE COMPANIES ACTS, 1862 AND 1867.

## THE NORTH TANKERVILLE MINING COMPANY (LIMITED).

NOTICE IS HEREBY GIVEN, that ALL PERSONS having any DEBT, CLAIM, or DEMAND against the ABOVE-NAMED COMPANY are hereby required to SEND IN the PARTICULARS of the SAME to the Liquidator appointed by the said company, on or before Saturday, the 21st day of March, 1874; and, in default thereof, they will be EXCLUDED from the BENEFIT of ANY DISTRIBUTION made before such debts, claims, and demands are proved.

F. R. A. FRANKLYN, Liquidator.

Dated the 20th day of February, 1874.

## TO INVESTORS.

TWO SPLENDID OPPORTUNITIES SUCH AS ARE SELDOM MET WITH—the one, a COTTON SPINNING CONCERN, ready for IMMEDIATE WORKING, and stocked with the most VALUABLE MACHINERY, principally new—the other, a LARGE IRONMONGERY BUSINESS, at present and for the past 22 years in ACTIVE TRADE, and which has always realised very large profits—ARE NOW OFFERING.

Investors are only invited to apply for interests therein. Adventurous investors, speculating with the object of receiving promotion money, will not be treated with.

Those only who desire to secure a permanent income on a moderate investment, need apply personally, or address by letter—

Mr. HALLAS, PUBLIC ACCOUNTANT, 32, FAULKNER STREET, MANCHESTER.

Who will furnish the fullest information, and to probable investors furnish letters of introduction to view the properties.

## MINING IN SPAIN.

OWING to the present state of matters in Spain, several good MINES of IRON, ZINC, LEAD, and COPPER can be BOUGHT for a MERE NOMINAL SUM. As an investment these will pay handsomely with a little keeping.

Address, Mr. Woods, Santander, Spain.

BARYTES (SULPHATE OF), CRUDE OR GROUND, FOR SALE. Apply to FORCE CRAG LEAD AND BARYTES MINING COMPANY, 69, Close, Newcastle-on-Tyne.

## TO MINING COMPANIES AND CONTRACTORS.

LIGHT RAILS FOR SALE.—THIRTY TONS of NEW RAILS, 14 lbs. per yard, £11 5s. per ton delivered in London. Address, by letter, to "Contractor," at Brown's Advertising Office, 4, Little George-street, Westminster Abbey.

## RAILS (IRON) FOR SALE.

NEW PERFECT FLANGE RAILS, 40, 60, 72, 74, and 75½ lbs. per yard; also, SLIGHTLY DEFECTIVE FLANGE RAILS, 40, 50, 72, and 74 lbs. per yard. For particulars and prices apply to W. G. FOSSICK, 6, Laurence Pountney-hill, London.

RAILS FOR SALE, in great variety of sections (perfect, slightly defective, and second-hand), 14 to 82 lbs. per yard. Also CHAIRS and the other NECESSARY FITTINGS. Apply to BREYEN, RICHARDSON, and Co., Newcastle-on-Tyne.

## MINING MACHINERY.

MESSRS. F. W. MICHELL AND CO. have FOR SALE several CORNISH PUMPING, STAMPING, and WINDING ENGINES, of different sizes; BOILERS from 6 to 12 tons each; PITWORK of all sizes; CORNISH CRUSHERS; STAMP AXLES; IRON FLAT-RODS; STRAPPING PLATES; and other MATERIALS in general use in Mines, &c.

EAST CARN BREA, REDRUTH, CORNWALL.

## PIT SINKING, &amp;c.

FOR SALE (ready for delivery), an 18-horse power and a 25-horse power PORTABLE STEAM ENGINE, fitted with link motion, reversing gear, &c.

A 35-horse power PORTABLE MINING ENGINE is in a forward state, and can be supplied in three weeks.

WINDING DRUMS and GEAR in stock, and to order on short notice. Also, ordinary PORTABLES of all sizes, VERTICAL ENGINES, MORTAR MILLS, SAW TABLES, &c., on advantageous terms.

Several good SECONDHAND PORTABLE ENGINES FOR SALE. BARROWS AND STEWART, ENGINEERS, BANBURY.

BURROW AND BUTSON MINING COMPANY (LIMITED).

Notice is hereby given, that the OFFICES of THIS COMPANY have been REMOVED to 10, JOHN STREET, ADELPHI, W.C., and that Mr. HENRY VON USTER, F.G.S. (the company's consulting mining engineer), has been APPOINTED the SECRETARY of this company.

By order of the Board of Directors, J. W. WILLIAMSON, Chairman.

London, 9th February, 1874.

THE MALPASO GOLD WASHING COMPANY (LIMITED).

Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the Members of the Malpas Gold Washing Company (Limited) will be HELD at these offices on TUESDAY, the 24th inst., at One o'clock, at which the following Resolution will be proposed, in pursuance of the 3rd section of the company's Articles of Association:—

"That the nominal capital of the company be increased to £40,000, by the further issue of 10,000 shares of £1 each; that the said 10,000 shares shall be preference shares, and shall be entitled to a preferential dividend of 10 per cent. over and above all dividends paid on the ordinary shares—that is to say, 10 per cent. out of the net profits available for dividend will be paid upon the preference shares in the first instance, in proportion to the amount paid up on such shares, and the balance of net profits available for dividend after payment of such preference dividend will be divided between the ordinary and preference shares, in proportion to the amount paid up on such shares, without distinction, and as if all such shares stood on the same footing, and that such preference shares shall become and rank solely as ordinary shares so soon as there shall have been paid thereon dividends, including both preference and ordinary, to the amount paid up on such shares."

By order, SYDNEY A. CORBETT, Secretary.

1, Winchester House, Old Broad-street, London, E.C., 10th February, 1874.

MESSRS. CAMERON AND CO., FINANCIAL AGENTS AND SHARE BROKERS.

BRIDGE STREET CHAMBERS, CHESTER.

MESSRS. GROSVENOR AND CO., SHAREBROKERS.

88, PORTLAND STREET, MANCHESTER, beg to inform their clients and the public in general that they have for sale a few shares in each of several most promising Progressive Mines, which they fearlessly assert will shortly return to investors enormous profits on a small outlay and at a nominal risk.

MESSRS. S. R. COCKS AND CO., MINING ENGINEERS, &c.

ROCHE, ST. AUSTELL.

COPPER MINE GRANT OR SETT FOR SALE.

TIN MINE " " " "

SLATE QUARRY " " " "

CHINA CLAY " " " "

IRON MINES " " " "

Also, 24 heads of STAMPS, iron axes, four cams to the round, and dressing appliances.

Prices and particulars on application.

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ONE SILVER-LEAD SETT, proved very rich.

ONE LEAD " " " "

ONE IRON " " " "

And a PROPRIETOR'S INTEREST in a RICH GOLD SETT.

FOR SALE—A CAPITAL PERCUSSION TABLE, in first rate condition.

Mold, Dec. 22, 1873.

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14, ALBERT ROAD, PLYMOUTH.

MR. R. PERCY ROBERTS, FINANCIAL AGENT.

60, ENGLISH STREET, CARLISLE.

MR. J. S. MERRY, ASSAYER AND ANALYTICAL CHEMIST.

SWANSEA.

## In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL KITTY (LEANT) MINING COMPANY.—ALL CREDITORS or CLAIMANTS of the ABOVE-NAMED COMPANY, who have not received notice from the Official Liquidator of the said Company that their claims have been already admitted, are hereby required to COME IN AND PROVE THEIR SEVERAL DEBTS OR CLAIMS at the Registrar's Office, Truro, on Friday, the 6th day of March next, at Eleven o'clock in the forenoon, or, in default thereof, they WILL BE EXCLUDED FROM THE BENEFIT OF ANY DISTRIBUTION made before such proof. And for the purpose of such proof they are either to attend in person, or by their solicitors or competent agents, or (unless such attendance be required by the Registrar's summons) they are to send affidavits being sworn either before some Commissioner of the said Court, or any Commissioner of one of the Superior Courts lawfully authorised to take and receive affidavits and affirmations.

Dated Truro, the 16th day of February, 1874.

## In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WEST DRAKE WALLS MINING COMPANY.—ALL CREDITORS or CLAIMANTS of the ABOVE-NAMED COMPANY, who have not received notice from the Registrar of the said Court that their claims have been already admitted, are hereby required to COME IN AND PROVE THEIR SEVERAL DEBTS OR CLAIMS at the Registrar's Office, Truro, on Saturday, the 7th day of March next, at Eleven o'clock in the forenoon; or, in default thereof, they WILL BE EXCLUDED FROM THE BENEFIT OF ANY DISTRIBUTION made before such proof. And for the purpose of such proof they are either to attend in person, or by their solicitors or competent agents, or (unless such attendance be required by the Registrar's summons) they are to send affidavits being sworn either before some Commissioner of the said Court, or any Commissioner of one of the Superior Courts, lawfully authorised to take and receive affidavits and affirmations.

Dated Truro, the 17th day of February, 1874.

MONDAY, MARCH 2ND, 1874, AT ONE P.M.

JOHN THOMAS, Auctioneer, of Redruth, has been favoured with instructions TO SELL, AT PUBLIC AUCTION (subject to such conditions as will then and there be read), at Boscan Account-house, in the parish of St. Just, Cornwall, on Monday, the 2nd of March, at One P.M.,

LOT I.

## THE WHEAL CALL PART OF THE WHEAL CUNNING UNITED MINES (as a going concern).

The MACHINERY and MATERIALS on this lot are as follows:— ONE 37 in. cylinder PUMPING ENGINE, 7 ft. stroke, equal beam, with ONE 8 ton BOILER; shaft tackle, complete; balance bob. 20 9 fms. 7 in. pumps. 20 9 fms. 4 in. ditto. 22 9 fms. 4 in. ditto. 1 9 in. H and top doorpiece. 1 8 in. ditto. 1 6 in. ditto. 1 4 in. H and top doorpiece. 120 fms. 1½ in. round iron rods. 90 fms. 9 in. wood rods, rod plates, and bolts. 2 tram wagons. 180 fms. diagonal skip road. 90 fms. skip road. 100 fms. ladders. 4 skips. Smith's tools, miners' tools, &c.

LOT II.

## THE HIGHER BOSCAN PART OF THE ABOVE MINES (as a going concern).

The MACHINERY and MATERIALS on this lot are as follow:— ONE 36 in. cylinder PUMPING ENGINE, 9 ft. stroke, with TWO BOILERS, of 8 tons and 6 tons respectively. ONE 24 in. cylinder STAMPING ENGINE, 8 ft. stroke, with TWO BOILERS, 16 tons, with tin under the stamps and tin leavings. Two fly wheels; 2 wrought shafts; 2 driving wheels; 32 lifters; 32 heads and bottoms; 32 tongues. ONE 20 in. double acting WINDING ENGINE, with fly wheel, cage, crown and spur wheel, plumb blocks, &c. 140 fms. 2 in. round iron rods. 3 balance bobs, complete. 2 angle bobs. 60 fms. 1 in. round iron rods. 70 fms. bridge rails. 100 fms. tram bars, 2½ by 5½. 46 9 fms. 8 in. pumps. 20 9 fms. 7 in. ditto. 30 9 fms. 6 in. ditto. 100 fms. 8 and 6 in. wood rods. Rod plates and bolts. 1 8 in. H and top doorpiece. 1 7 in. ditto. 1 6 in. ditto. 3 plunger poles, complete. To view the same, and for further particulars, apply to RICHARD BOYNS, Esq., Boswell House, St. Just; or to the Auctioneer, at his offices, West End, Redruth. Dated February 17th, 1874.

WEDNESDAY, MARCH 4.

## EAST PHOENIX MINE, LINKINHORNE.

MESSRS. WISE AND SHORT are instructed to SELL, BY AUCTION, at East Phoenix Mine, in the parish of Linkinhorne, Cornwall, on Wednesday, the 4th of March, 1874, the WHOLE of the

MACHINERY, MINING MATERIALS, AND PLANT

on the above Mine, comprising— ONE 50 in. cylinder PUMPING ENGINE, 9 ft. stroke, equal beam, with ONE BOILER, crab winch, and first piece main rod. ONE 24 in. cylinder WINDING ENGINE, 8 ft. stroke, drawing cage, and ONE BOILER, complete. 1 east iron balance bob, with hanging rod. 36 heads stamps, with stands, frames, lifters, &c. 1 60 ft. shears, sheaves, blocks, &c. 12 12 in. pumps, with bottoms, complete. 40 11 in. ditto ditto. 10 10 in. ditto ditto. 80 9 in. ditto ditto. 60 fms. 12 in. main rod, with strap-plating plates. 90 fms. 9 in. ditto ditto. Bucket rods, setoffs, &c. 1 angle bob, with wrought iron gudgeons, pins, straps, saddles, and brasses. 180 fms. 9 in. galvanised iron air pipes. 200 fms. 3 in. steel wire rope. 100 fms. 2 in. ditto. Bridge and flat tram rails. 200 fms. iron stave ladders. 5 tram wagons. 2 double purchase crab winches. 1 water wheel. 4 round boulders, with driving gear attached. Tin dressing tools, tables, and knives. Wood sheds, flooring, &c. 2 bellows, 2 anvils, 2 vices, 1 mandril. 1 horse, and other smith's tools. Miners' tools. New and old iron; beam and scales. 130 fms. 1½ in. flat rods. Pulleys and stands.

And various other articles too numerous to mention. Catalogues may be obtained of Mr. W. LANGDON, Northumberland Foundry, Lanchester; or of the Auctioneers at Lanchester.

For viewing the above, apply to the Mine, which is situate near Upton Cross, and adjoins the highway there.

Lanchester, at Eleven o'clock. Sale to commence at Twelve precisely.

The lots being numerous a punctual attendance is requested.

Dated Lanchester, 17th February, 1874.

GLAMORGANSHIRE.—FREEHOLD COAL PROPERTY FOR SALE.

MESSRS. GRAHAM AND SON (of Newport) WILL SELL, BY AUCTION, at the Westgate Hotel, Newport, Monmouthshire, on Friday, 6th March, 1874, at Twelve at noon precisely, all that FREEHOLD FARM AND LANDS, called

GIL-FACH-FAR-GOED FACH

including COED COVER, situate in the parish of GELLIGAER, in the county of GLAMORGAN, and containing an area of 62A. 0R. 36P., or thereabouts; the surface whereof (except 1A. 3R. 0P., taken by the Rhymney Railway) is now in the occupation of GEORGE BATTERS, Esq., and Mr. DAVID WILLIAMS, at the respective annual rents of £44 and £28, and also a way leave of one penny per ton on all coal passing through the property.

This property is intersected by the Rhymney Railway, and is thus connected with the shipping port of Cardiff (16½ miles distant) and Rhymney, and also the important iron-making districts of Tredegar, Sirhowy, Ebbw Vale, Nant-y-Glo, and Blaenavon. By means of the Bargoed Rhymney Railway and its connections access is given to Dowlais and Merthyr.

This property contains all the seams of coal of the Merthyr Tydfil district. The Mynyddylwyn seam has been nearly worked out under the property, but that well known as the Bithdir seam, it is believed, will be found there at a depth of not more than 250 yards, as it is now being extensively worked in the Rhymney, the Rhymney Bargoed, and Taff Bargoed Valleys.

This seam, at the Darran Pit, two miles north of this property, proves from 3 ft. 8 in. to 3 ft. 9 in. thick, in one solid block of coal, with excellent rock top. At the new Cefn Bithdir Pit it proves about the same thickness, and equally good in quality.

The Bithdir coal is highly bituminous, a good coking coal, and in great demand for iron-making.

The steam coals, as worked by the Dowlais Iron Company at the Fochriw Pits, and by the Powell's Duffryn Colliery Company (Limited), at their New Tredegar Pits, will doubtless be found under this property at a depth of from 200 to 600 yards.

The present sale offers a rare opportunity of buying a freehold coal property, such as very seldom occurs.

Printed conditions of sale, with plan of the property, &c., and all further particulars, may be had on and after Monday, 16th February, 1874, on application to the Auctioneers, at Newport: CHARLES HENRY JAMES, Esq., Mining Engineer, 8, Courtland Terrace, Merthyr Tydfil; or to C. F. and G. JAMES, Solicitors, Merthyr Tydfil.—February 9, 1874.

TO COLLIERY OWNERS, AND OTHERS.

TO BE SOLD (cheap), a FIRST-CLASS SECOND-HAND SINKING ENGINE, having a pair of 8 in. cylinders, with winding drum, complete.

For full particulars and prices, apply to ROBEY AND COMPANY (Limited), Engineers, Lincoln.

## IN LIQUIDATION.

## THE REAFADDA MINING COMPANY (LIMITED).

TO BE SOLD, BY TENDER, the ESTATE and INTEREST of the above company in the COPPER MINES, situate in the parish of HOLYFORD, county of TIPPERARY, known as the

"REAFADDA" or "HOLYFORD" MINES.

With the RIGHTS, &c., thereto belonging, comprised in a lease for 35 years, from the 24th day of March, 1871, at a royalty of 1-16th for copper ore and 1-12th for lead and other ore, &c., and subject to the covenants and conditions contained therein.

The horse whim, plant, and tools may be seen on application to Mrs. Alice Hayes, at the farm adjoining the mine, which is about ten miles from the Limerick Junction Station, having a good road thereto.

Sealed tenders to be endorsed and sent to the Liquidator, up to Three P.M., on Wednesday, the 25th instant, but he does not bind himself to accept the highest or any tender.

A copy of the lease can be inspected at the office of the Liquidator, where also other information may be obtained.

WILLIAM ALDRED, Liquidator,  
28, Pall Mall, Manchester.

## IN LIQUIDATION.

## GREAT SOUTH CHIVERTON SILVER-LEAD MINING COMPANY (LIMITED).

THE LIQUIDATORS of the above Mine invite TENDERS for the PURCHASE of the MACHINERY and PLANT, comprising a 40 in. PUMPING ENGINE, PITWORK, TACKLE, &c., complete, and in perfect order, as also the LEASES and BUILDINGS, particulars of which may be had on application to either of the Liquidators.

HENRY CHAPMAN, Finsbury-square-buildings, London, E.C.

Capt. JOHN NANCARROW, Camborne, Cornwall.

Tenders will be received up to the 28th February, 1874.

Dated this 12th day of February, 1874.

## TO IRONMASTERS, COLLIERY OWNERS, AND OTHERS.

CARNE PARK COLLIERY.

MR. W. P. STEPHENSON (Auctioneer) WILL SELL, BY AUCTION (unless previously disposed of by Private Contract), at the Royal Hotel, Cardiff, on Wednesday, the 11th March, 1874, at Two o'clock P.M.,

## THE CARNE PARK COLLIERY.

Situate near to the Aberdare Junction Station of the Taff Vale Railway, about 16 miles from Cardiff, and three miles from the Quaker's Yard Junction of the Great Western Railway.

The colliery is connected with the Taff Vale Railway by means of convenient sidings, and from its situation the tolls for coal to the ironworks of Aberdare and Merthyr are much below those of the Rhondda Valley.

The extent of property is about 320 acres, and is held under an agreement for lease from Dr. Nicholl Carne for 42 years, 36 of which are unexpired. The royalty is 6d. per ton, of 2520 lbs., and the dead rent £100 per annum.

The coal crops out upon the property, and is wrought by a day level, which drains a very considerable portion of the royalty, and the remainder can be won and drained level free by means of another opening.

The coal is of the same description as that suggested by Mr. Derry, the late Government Inspector of Coal Shipments, for use in conjunction with the drier anthracite coals of the district.

There is a band of fire-clay, from which bricks could be made. The level is capable of producing 40 tons per day, and this can be readily increased at an outlay of no great amount.

The steam coal measures underlie the property, but are not included in the taking. Application to be made to Mr. W. P. STEPHENSON, Auctioneer, 21, Queen-street, Cardiff, who will give orders to view the premises.

## WHEAL OSBORNE MINE AND MATERIALS FOR SALE.

BENJAMIN LIBBY, Auctioneer, &c., Camborne (for the Widow of the late Mr. W. G. POLSEY), has been favoured with instructions TO SELL, BY PUBLIC AUCTION, on Tuesday, the 3rd March next, at Twelve o'clock, noon, on the Mine, in One Lot, as a going concern, ALL THAT MINE known as

WHEAL OSBORNE,

Situated near TOWNSEND, in the parish of Crowan, near Camborne, together with the MACHINERY and MATERIALS thereon, comprising—

A 40 in. cylinder PUMPING ENGINE, with ONE BOILER, 10 tons, 12 heads of stamps, worked by a 14 in. engine, with one 8 ton boiler, about 50 fms. of 11 in. pitwork, with two drawing lift bottoms, complete, tin dressing floors, complete, and all the other materials on the mine.

The pumping engine is a very superior one, and is in good working order, and the mine being of a most promising character, with complete machinery to develop it fully, and to dress the ore, the lot forms a splendid investment for capitalists, and should be eagerly sought after.

To view the same, apply to the Agents on the Mine; and any further particulars may be obtained of the Manager, Capt. CARKEK, Camborne; or of the Purser, W. PAGE CARDOZO, Esq., Camborne.—Dated February 16th, 1874.

## COAL AND IRONSTONE PROPERTY.

ON SALE, a very valuable PROPERTY, consisting of FIFTY-SIX ACRES of COALS and IRON ORE, situated at SELSTON, NOTTINGHAMSHIRE, and within 1400 yards of a part of the Great Northern Railway now being constructed, and within 1700 yards of the Midland Railway, and within 300 yards of the Butterley Company's tramway.

To any capitalist or company disposed to undertake the development of this property, unusually favourable terms can be had, and it is believed that the outlay would not be large.

An authentic report can be furnished on application to JOHN BERRIE, Esq., Culcheth Hall, Newton Heath, near Manchester.

FOR SALE, an excellent 60-horse high-pressure HORIZONTAL STEAM ENGINE, 30 in. cylinder, 5 ft. stroke, with TWO spherical-ended cylindrical BOILERS, 42 ft. long and 5 ft. diameter. Also TWO SETS of 18 in. PIT PUMPS, about 200 ft. long each, with double bell crank, connecting rod, and spars and gear complete. A 10 in. double action FORCE PUMP is attached to the engine, which can be detached, or otherwise.

Application to be made to THOMAS HAWKLEY, Esq., C.E., 30, Great George-street, Westminster; or to Mr. LOAM, at the Waterworks Office, Nottingham.

N.B.—The articles above mentioned have been used for sinking a large shaft, and are peculiarly well adapted for COLLIERY and other MINING PURPOSES.

FOR SALE, ready for immediate delivery, ONE NEW STEAM DONKEY FEED PUMP; inverted cylinder 10 in. diameter by 12 in. stroke, working a 6 in. diameter brass plunger, chamber brass lined, valves brass.

For price and particulars, apply to PEACOCK and TAYLOR, Engineers, &c., 44, Dean-street, Newcastle-on-Tyne.

## RARE OPPORTUNITY FOR MAKING A FORTUNE.

TO BE SOLD, PART or ENTIRE (former preferred) of a COLLIERY ROYALTY, in NORTH WALES, bordering on the London and North-Western Railway, and close to a shipping port. There are several shafts partially sunk, some requiring to be sunk still deeper, but operations stopped for want of capital. There are four seams of good house and steam coal proved in an area upwards of 400 acres of surface. Holder will sell the entire, including the present plant (not sufficiently powerful for sinking further) for £4000, but would prefer taking a PARTNER, who would advance the necessary capital for half profit, which in the present state of the coal trade are almost fabulous.

Address, "Vulcan," care of Mr. Watson, 15, Fenwick-street, Liverpool.

## FINE OPPORTUNITY FOR MAKING A FORTUNE.

TO BE SOLD, PART or ENTIRE (former preferred) of a COLLIERY ROYALTY, of about 170 acres, in NORTH WALES. The pit is sunk 20 yards deep to the seam containing the best description of Cannel. There are six other seams of good coal (the first being King coal, only 14 yards under it) known to be beneath this seam. Its situation being half a mile from a railway station, and also admirably adapted for land sale, close to excellent roads, the working expenses, royalty, rent, and outlay small for a probable get in a few weeks of 400 tons daily at an almost fabulous profit, render the present undertaking one well worthy the immediate attention of capitalists, coal dealers, gas manufacturers, or colliery proprietors.

</



## ECONOMICAL STEAM POWER.

## GENERAL ENGINE &amp; BOILER COY.

ESTIMATES ON APPLICATION AT 8, UNION COURT, OLD BROAD STREET, LONDON, E.C.



T. A. WARRINGTON.

CO-PATENTEE OF "THE POWER-JUMPER."

SOLE AND EXCLUSIVE AGENT FOR

THE "KAINOTOMON" ROCK DRILL,

FOR SIMPLICITY, ECONOMY, AND EFFICIENCY UNEQUALLED; AND

ANDRE'S PATENT HYDRAULIC MINING PUMP,

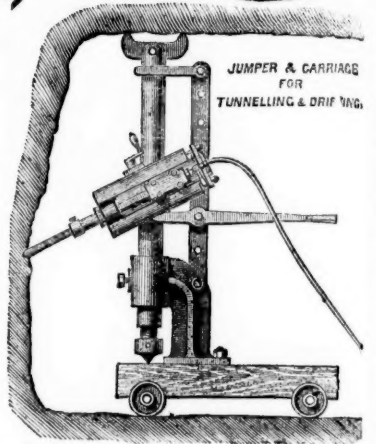
Both these Machines were awarded the FIRST-CLASS MEDAL at the Royal Cornwall Society's Exhibition, 1873.

ENGINEER, AND CONTRACTOR FOR

MINING MACHINERY OF EVERY DESCRIPTION.

Rock Drills, Coal Cutters, Air Compressors, Winding and Pumping Machinery, Steam Boilers, Stone Breakers, Quartz Crushers, Stamps, &amp;c.

30, KING STREET, CHEAPSIDE, LONDON, E.C.

DIAMOND FUEL COMPANY  
(LIMITED).  
FOR PRODUCING SOLID FUEL FROM COAL OR  
COKE DUST.THIS COMPANY are now GRANTING LICENSES for the USE  
of their PATENT in the UNITED KINGDOM.

By being able to dispense with the costly processes employed in the manufacture of existing patent fuels, and producing an article free from their defects, this company believe their fuel, when generally known, must supersede all other patent fuels.

By its employment the owners of Anthracite Collieries may utilise the small, which has been hitherto wasted.

The proprietors of Gas Works may by its use bind together and use over again their coke breeze.

Application to be made to the SECRETARY, at the office of the company, -

23, OLD BROAD STREET, CITY, E.C.

HUNTRISS AND SWINBURNE'S

PATENT STEAM

JET GAS EXHAUST AND PROPELLER.

THE PATENTERS beg respectfully to CALL the ATTENTION  
of COLLIERY PROPRIETORS, MINING ENGINEERS, COLLIERY  
ENGINEERS, and OTHERS to their NEW and IMPROVED METHOD of  
PROPELLING GAS, by means of an infinitesimally small Steam Jet, to fit  
bottoms, to light up Hauges on Main Roads, Stables, Underground Engines, or  
any other places where gas-flights are required at considerable depths below the  
level of the gasometers, which do not require weighting.The system, from its extreme simplicity, non liability to disarrangement, cheap-  
ness of construction, and thorough efficiency, renders it superior to all hitherto  
tried systems of obtaining cheap and good lights underground, and they invite  
attention to their apparatus, working daily at the principal collieries in Yorkshire,  
Derbyshire, Northumberland, South Staffordshire, &c.

For particulars, terms, &amp;c., apply to-

HUTCHINSON BROTHERS,  
GAS ENGINEERS AND SOLE AGENTS,  
BARNSELY.THE NEWCASTLE DAILY CHRONICLE  
(Established 1784.)  
THE DAILY CHRONICLE AND NORTHERN COUNTIES ADVERTISER  
Offices, Westgate-road, Newcastle-upon-Tyne; 50, Howard-street, North  
Shields; 195, High-street, Sunderland.By a special method of preparation, this leather is made solid, perfectly close in  
texture, and impermeable to water; it has, therefore, all the qualifications essen-  
tial for pump buckets, and is the most durable material of which they can be made.  
It may be had of all dealers in leather, and of-I. AND T. HEPBURN AND SONS,  
TANNERS AND CURRIERS, LEATHER MILLBAND AND HOSE PIPE  
MANUFACTURERS,  
LONG LANE, SOUTHWARK, LONDON  
Prize Medals, 1851, 1855, 1862, for  
MILL BANDS, HOSE, AND LEATHER FOR MACHINERY PURPOSES.

Works published at the MINING JOURNAL office, Fleet-street, London

NEW GUIDE TO THE IRON TRADE. By JAMES ROSE (reprinting). Price  
8s. 6d.; by post, 9s.  
THE MINERS' ASSOCIATION OF CORNWALL AND DEVONSHIRE -  
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(Third Edition). 2s.  
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By W. HOPKINS, Colliery Manager. 2s. 6d.; by post, 2s. 8d.  
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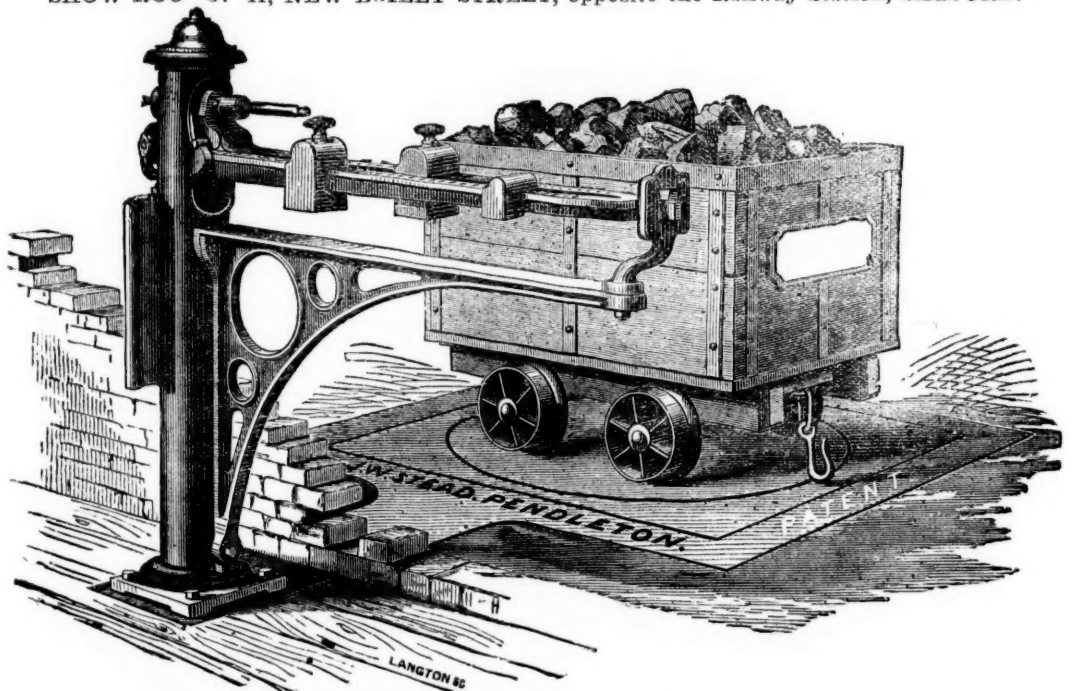
(Late of the Firm of HODGSON and STEAD),

MANUFACTURER OF WEIGHING MACHINES, WEIGHBRIDGES,

AND ALL DESCRIPTIONS OF WEIGHING PLANT FOR ALL NATIONS.

GLOBE FOUNDRY, PENDLETON, MANCHESTER.

SHOW ROOMS: -11, NEW BAILEY STREET, opposite the Railway Station, SALFORD.



NEW PATENT WEIGHING MACHINES, specially for Mining Uses.

Globe Foundry is One Minute's Walk from the Pendleton Bus Office, and Four Minutes' from Pendleton Railway Station.

## THE "CRANSTON" ROCK DRILL.

J. G. CRANSTON begs to announce that he is now prepared to supply the above machine, for which  
he has recently secured Letters Patent.The "CRANSTON" ROCK DRILL is already in successful operation in several Mines in the North  
of England.

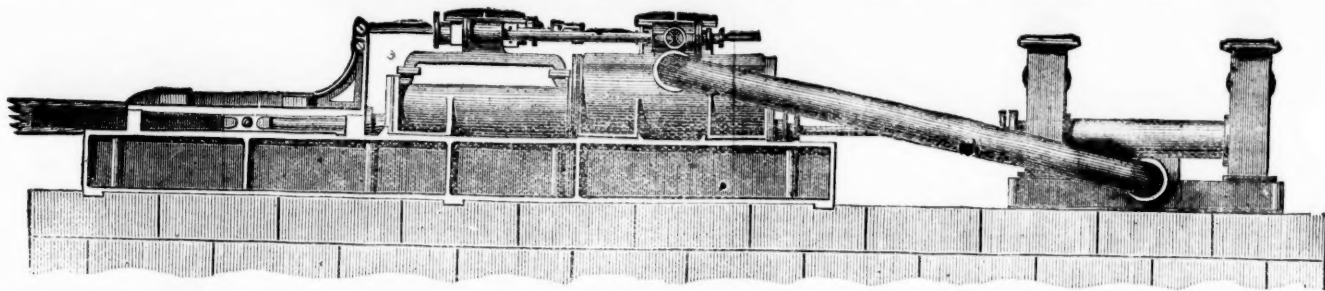
STEAM BOILERS, AIR COMPRESSORS, and all other MINING MACHINERY supplied.

For prices, estimates, and other particulars, apply to-

J. G. CRANSTON, ENGINEER, 22, GREY STREET,  
NEWCASTLE-ON-TYNE.THOMAS WARDEN & SON,  
IRON, STEEL, AND GENERAL MERCHANTS,  
LIONEL STREET, BIRMINGHAM.Manufacturers of Anvils, Vices, Hammers, Bellows, Tue Irons, Hydraulic and Screw Jacks, Crabs,  
Cranes, Spades, Shovels, Picks, Arms and Boxes, Axles, Springs, Hurdles and Fencing, Screw  
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SECOND-HAND RAILS, AND EVERY DESCRIPTION OF RAILWAY, COLLIERY, AND CONTRACTORS' PLANT  
ALWAYS ON HAND.



# HATHORN, DAVIS, CAMPBELL, AND DAVEY, MAKERS OF THE COMPOUND DIFFERENTIAL EXPANSIVE PUMPING ENGINE DAVEY'S PATENT.



Also, Single-cylinder Condensing Differential PUMPING ENGINES; Steam Pumps, of various kinds; Hydraulic Pumps, for dip workings; Winding Engines; Compound Rotative Engines; the Separate Condenser; High and Low Pressure Steam Boilers, &c.

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## PORTABLE STEAM ENGINES

With Gear for Winding, Pumping, and Ore Crushing.

Also, COMBINED MILLS and ENGINES, with

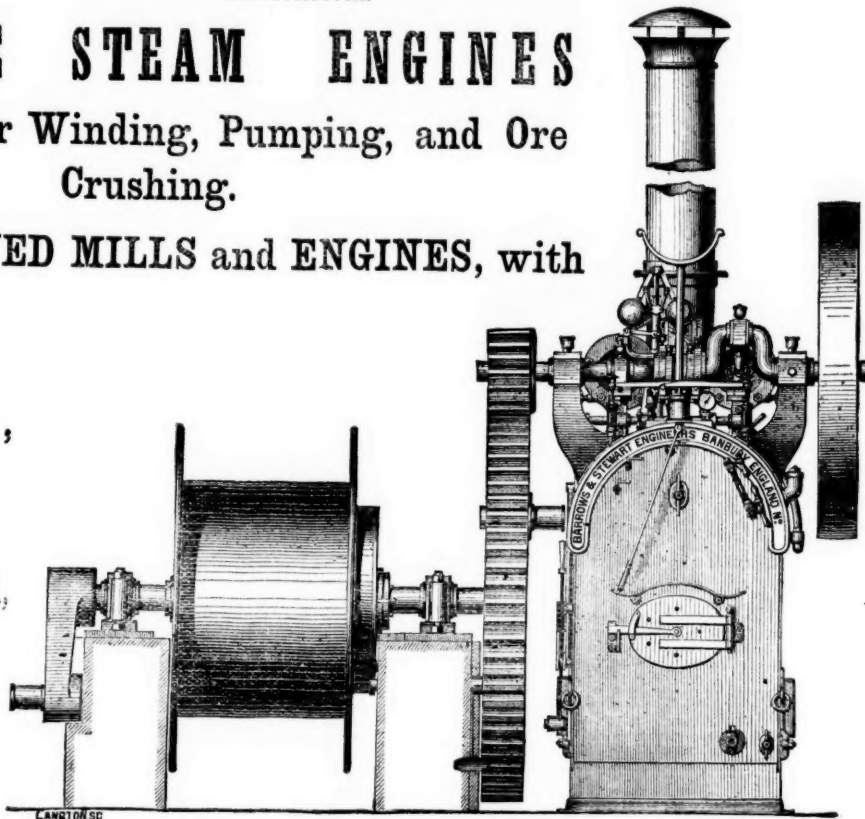
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BOILERS,

for Grinding

Cinders, Sand,

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FIRST BRATTICE CLOTH AND AIR TUBING WORKS ESTABLISHED IN WALES OR SOUTH OF ENGLAND.

## GOVERNMENT FIRE-PROOF BRATTICE.

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MAJESTY'S INDIAN GOVERNMENT.

## BRATTICE CLOTH!!!

PERFECTLY AIR-TIGHT AND ANTI-ROT PROOF.

DOOR CLOTH. Doors made to any size, with Brass Eyelets.

FLEXIBLE AND IRON AIR TUBING, any size or diameter.

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Manufacturer of LOCOMOTIVE and WAGON GREASE; TRAM OILS and VARNISHES; WIRE ROPE and ANTI-FRICTION GREASES.

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CHARLES PRICE AND CO'S

## PATENT RANGOON ENGINE OIL.

THIS OIL is suitable to every kind of Machinery; it is used almost exclusively in Her Majesty's Dockyards and Fleet, and by the War Office and East India Government; as well as by the Royal Mail Steam Packet Co., Pacific Steam Navigation Co., P. and O. Co., Cunard Co., and by most of the other important Royal Mail Steam Fleets in the kingdom. It is also extensively employed on the various railways, and by many of the leading engineering and manufacturing firms at home and abroad.

"I hereby certify that the Rangoon Engine Oil, manufactured by Messrs. Chas. Price and Co., is free from any material which can produce corrosion of the metal work of machinery. It is calculated, indeed, to protect metallic surfaces from oxidation, and from its peculiar character, is not liable to lead to spontaneous combustion of cotton waste or any similar material which might become imbued with it, as is the case with Rape, Gallipoli, and Olive Oils. The lubricating power of this oil is equal to Sperm or Lard Oil."

T. W. KEATES, F.C.S., &c., &c., Consulting Chemist to the Board of Works."

Extract from Mr. BAXTER'S Speech in the House of Commons, May 31st, 1870:—

"Chas. Price and Co.'s Rangoon Oil—"a vastly superior article" (speaking of Gallipoli Oil at £72 per ton)—"was obtained for from £40 to £45 per ton."

Every parcel of the Oil sent from the Works bears the Trade Mark of the Firm, and as many spurious imitations of the Rangoon Engine Oil are sold purchasers are requested to observe that none is genuine which does not bear this mark.

Oil, Tallow, and Colour Merchants, Seed Crushers, Turpentine Distillers, &c.

London: CASTLE BAYNARD, UPPER THAMES STREET, & MILLWALL, POPLAR — Works: ERITH, KENT

## CAPTAIN ABSALOM FRANCIS.

GOUGHAN, ABERYSTWYTH, MINING AGENT, ENGINEER, AND SURVEYOR. The great success which is attending the opening and working of the Mines in the counties of Cardigan and Montgomery, and the many properties placed at the disposal of Capt. ABSALOM FRANCIS, induce him to offer his services either to ADVISE, INSPECT, REPORT, or SURVEY, for Mining Companies or private shareholders.

For terms, apply to Capt. ABSALOM FRANCIS, as above.

## M. R. CHARLES F. COLLOM,

MINING ENGINEER, INSPECTOR OF MINES, &c.

TAVISTOCK.

MANAGEMENT OF THE SOUTH DEVON FIRE-CLAY COMPANY.

Patentee of COLLOM'S PATENT REVOLVING FRAME for DRESSING TIN, AMALGAMATING GOLD, &c.

INVESTMENTS IN MINES ARRANGED FOR CAPITALISTS.

MESSRS. WATSON BROTHERS return their most sincere thanks for the great patronage bestowed and confidence reposed in their firm for upwards of 30 years, and to assure their friends and clients it will be their earnest endeavour to merit a continuance of both.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with Statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring the success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share-dealing than there is at present; and, from the lengthened experience of Messrs. WATSON BROTHERS, they are emboldened to offer, thus publicly, their best services to all connected with the mining interest.

Messrs. WATSON BROTHERS are daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

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Among the great complaints of metallic miners of late, has been the high prices of Coal and Iron; thus while dividends in Copper and Tin Mines have been gradually falling, many Collieries and Ironworks have been paying 20, 30, and even 60 per cent.; and in consequence of this, Messrs. WATSON BROTHERS have had several inquiries from clients for prices and particulars of the best investments in both classes, and they are collecting information which they hope to publish from time to time, and will be glad if Secretaries and Managers will furnish them with the same kind of information that Pursuers and Secretaries of Metallic Mines have so freely done during the last 30 years. In the meantime they will be ready to deal, at Market prices, in any or all of them.

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## THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.									
Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Total divs.	Per share.	Last paid		
1500	Alderley Edge, c, Cheshire*	10 0 0	—	—	11 16 8	0 5 0	Oct. 1873		
20000	Alt-y-Crib, t, Talybont*	2 0 0	—	—	0 0 0	0 0 0	Oct. 1873		
30000	Bampfylde, c, m, Devon*	1 0 0	5 5 5	5 5 5	0 2 0	0 2 0	June 1873		
5000	Blaen Caelan, s, Cardigan* (24 sh.)	3 10 0	—	—	0 10 0	—	—		
15000	Boscawell Downs, t, c, St. Just*	3 0 0	1 1 1	1 1 1	0 5 0	0 5 0	Oct. 1871		
2000	Botalack, t, c, St. Just*	116 5 0	65	65	619 15 0	0 5 0	Aug. 1872		
500	Brookfield, s, c, St. Just*	100 0 0	—	—	110 0 0	0 2 0	Nov. 1872		
4000	Brookfield, s, c, St. Just*	1 16 0	—	—	2 14 0	0 5 0	Nov. 1872		
3348	Cargill, s, t, Newlyn*	4 16 11	1	3 1	4 16 3	0 12 0	Oct. 1872		
6400	Cashwell, t, Cumberland*	2 10 0	—	—	1 4 0	0 4 0	Aug. 1872		
7500	Castle-an-Dinas, t, St. Columb*	2 0 0	—	—	0 10 0	0 2 0	July 1873		
1000	Carn Brea, c, t, Illogan*	35 0 0	55	40 45	308 0 0	0 1 0	Feb. 1874		
6000	Cath. & Jane, t, Penrynheadraeth*	5 0 0	—	—	0 7 0	0 7 0	June 1873		
2450	Cook's Kitchen, t, Illogan*	20 4 9	9	8 9	11 17 0	0 7 0	Jan. 1873		
10240	Devon Gt. Consols, c, Tavistock*	0 12 0	—	—	116 10 0	0 12 0	May 1872		
4266	Doleath, c, t, Camborne*	10 14 10	45	44 45	104 4 2	0 12 0	Jan. 1874		
10000	East Ballewadden, t, Sancreed*	1 0 0	—	—	0 2 11	0 5 0	Feb. 1874		
6144	East Caradon, c, St. Cleer*	2 14 6	1	3 4	14 19 0	0 2 0	Oct. 1872		
300	East Darren, t, Cardiganshire*	32 0 0	—	—	218 10 0	0 1 0	Jan. 1874		
6400	East Pool, t, c, Illogan*	0 9 9	9	3 7 4	13 11 3	0 2 6	May 1873		
5000	Exmouth, t, c, Christow*	0 7 6	—	—	0 1 0	0 1 0	May 1873		
2800	Foxdale, t, Isle of Man*	25 0 0	—	—	80 15 0	0 10 0	Sept. 1872		
40000	Glasgow Carr, c, (30,000 £1 p., 10,000 15s. p.)	156 0 0	—	—	0 4 10	0 1 0	Sept. 1873		
15000	Great Laxey, t, Isle of Man*	4 0 0	13 1 1	13 1 1	18 11 0	0 10 0	Oct. 1873		
25000	Great West Van, t, Cardigan*	2 0 0	—	—	0 1 0	0 1 0	Sept. 1873		
5000	Great West Van, t, Cardigan*	40 5 0	1 1 1	1 1 1	15 10 0	0 2 0	Sept. 1873		
4000	Green Hurth, t, Durham*	0 6 0	6	4 5 5	1 4 0	0 4 0	Nov. 1873		
1024	Herodford, t, near Liskeard*	8 10 0	4 5 5	4 5 5	62 5 0	0 15 0	Oct. 1872		
18000	Hingston Downs, c, Calstock* (41 sh.)	—	—	—	4 3 0	0 5 0	Dec. 1872		
25000	Killiney, t, Tipperary*	1 0 0	—	—	0 3 11 3	0 6 0	Mar. 1873		
400	Liaburne, t, Cardiganshire*	18 15 0	—	—	561 10 0	0 1 0	Jan. 1874		
5120	Lovell, t, Wendron*	0 10 0	—	—	0 17 0	0 1 6	Jan. 1874		
9000	Minera Mining Co., t, Wrexham*	5 0 0	36	30 32 3	63 5 8	0 4 0	Oct. 1873		
20000	Minera Mining Co., t, Wrexham*	7 0 0	—	—	0 8 0	0 3 6	July 1872		
12000	North Hendre, t, Wales*	2 10 0	—	—	4 13 0	0 2 0	Jan. 1874		
27000	North Hendre, t, Wales*	1 0 0	—	—	0 9 0	0 9 0	Feb. 1874		
9000	Old Trebargett, s, t, (10 per cent. pref.)	0 10 0	—	—	0 1 0	0 1 0	Feb. 1874		
5094	Pedn-an-drea, t, Redruth*	8 2 0	2 2 2	2 2 2	0 5 0	0 5 0	Nov. 1871		
5000	Penhall, t, St. Agnes*	3 0 0	2 2 2	2 2 2	3 3 0	0 2 0	Jan. 1874		
50000	Penrthral, t, c, Gwennap*	2 0 0	—	—	0 1 0	0 1 0	Nov. 1873		
6000	Phoenix, t, c, Linkinhorne*	4 3 4	6 5 5	4 5 5	39 10 0	0 4 0	Nov. 1872		
1772	Polterro, t, St. Agnes*	15 0 0	—	—	1 12 0	0 5 0	Mar. 1872		
1000	Prince Patrick, s, t, Holywell*	1 0 0	—	—	0 5 0	0 2 0	Jan. 1874		
1120	Providence, t, Leland (last call Dec. 73)	12 16 7	16 1/2	16 1/2	104 12 0	0 10 0	Sept. 1872		
1000	Roman Gravel, t, St. Austell*	7 10 0	—	—	3 5 0	0 1 0	Oct. 1872		
10000	Shelton, t, St. Austell*	1 0 0	—	—	0 1 0	0 1 0	Feb. 1872		
6000	Shimford Dressing, t, Calstock*	1 0 0	—	—	0 1 1	0 1 1	Sept. 1872		
512	South Caradon, c, St. Cleer*	1 5 0	80	80 82 1/2	712 0 0	0 1 0	Jan. 1874		
5000	South Carn Brea, c, t, Illogan*	1 17 6	3	2 1/2	0 10 0	0 2 6	July 1872		
6000	South Darren, t, Cardigan*	3 6 6	—	—	1 1 6	0 1 6	Nov. 1870		
242	Spearhead, t, St. Just*	38 17 9	—	—	17 5 0	0 10 0	June 1872		
8771	St. Just Amalgamated, t*	3 10 0	—	—	0 9 0	0 4 0	Nov. 1871		
12000	Tankerville, t, Salop*	6 0 0	—	—	3 0 0	0 6 0	Feb. 1873		
25000	Terrace, t, St. Austell*	1 0 0	—	—	4 13 0	0 2 0	Oct. 1872		
4000	Thurcroft, c, t, Pool, Illogan*	9 0 0	31 1/2	32 34	46 18 0	0 15 0	Oct. 1872		
4000	Trumpet Consols, t, Helston*	5 15 0	—	—	9 11 0	0 10 0	Nov. 1872		
15000	Van, t, Llanidloes*	4 5 0	35	30 35	11 17 0	0 15 0	Dec. 1873		
3000	W. Chiverton, t, Penrynheadraeth*	10 0 0	—	—	52 10 0	0 5 0	Oct. 1873		
2048	West Wheal Frances, t, Illogan*	27 3 9	11	7 1/2	3 12 0	0 5 0	Oct. 1872		
512	Wheal Basset, c, Illogan*	5 2 6	22	20 21	638 10 0	0 10 0	Aug. 1872		
4265	Wheal Basset, c, St. Agnes*	5 4 6	9 5 5	9 5 5	11 1 6	0 6 0	Nov. 1873		
896	Wheal Margaret, t, Uny Leland*	13 17 6	2	2 2	82 2 3	0 10 0	May 1872		
10000	Wheal Mary, t, St. Dennis*	5 0 0	—	—	74 5 0	0 1 0	Jan. 1873		
1024	Wheal Mary Ann, t, St. Dennis*	10 0 0	1 1 1	1 1 1	74 5 0	0 1 0	Jan. 1873		
80	Wheal Owles, t, St. Just*	70 0 0	160	150 160	622 10 0	0 4 0	June 1873		
12000	Wheal Russell, c, Tavistock*	1 0 0	—	—	0 2 0	0 2 0	June 1871		
1356	Wheal Tregon, t, c, Camborne*	73 0 0	20	14 15	256 5 0	0 10 0	Oct. 1873		
15000	Wheal Tregon, t, c, Roche*	1 0 0	—	—	0 1 0	0 1 0	Jan. 1873		
10000	Wheal Whistler, t, c, Warleggan*	1 0 0	—	—	0 1 0	0 1 0	May 1873		
26000	Wicklow, c, s, t, Wicklow*	2 10 0	3	2 3 3	52 9 0	0 2 6	Mar. 1872		

## FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Total divs.	Per share.	Last paid		
355000	Almaden, t, Spain*	2 0 0	2 1/2	1 1/2	1 1 9	0 2 6	Mar. 1873		
300000	Almaden and Trito Consol., s*	1 0 0	—	—	0 4 3	0 1 0	May 1873		
20000	Australian, c, South Australia*	7 7 6	1 1/2	1 1/2	0 11 6	0 2 0	July 1873		
10000	Battle Mountain, s, c, (2040 part pd.)	5 0 0	—	—	0 10 0	0 10 0	Nov. 1872		
15000	Birdseye Creek, c, California*	4 0 0	—	—	0 9 0	0 2 0	July 1873		
6000	Bismarck, t, Germany*	10 0 0	3 1/2	8 9	0 17 4	0 8 0	July 1873		
12500	Burra Burra, s, c, So. Australia*	7 0 0	20 1/2	28 1/2	54 12 0	0 6 0	Dec. 1872		
20000	Cape Copper Mining, s, t, Africa*	7 0 0	20 1/2	28 1/2	14 15 0	0 1 0	Dec. 1872		
40000	Cedar Creek, c, California*	5 0 0	2 1/2	2 1/2	0 5 0	0 2 6	June 1873		
30000	Central American Association, t*	0 15 0	—	—	0 6 0	0 1 0	July 1889		
1500	Chingco, s, Utah*	7 0 0	—	—	0 16 0	0 4 0	Sept. 1873		
21000	Colorado Terrible, s, Colorado*	5 0 0	3 1/2	3 1/2	0 8 0	0 2 0	Oct. 1871		
76162	Don Pedro North of the Reef*	0 16 0	—	—	2 5 9	0 2 0	Mar. 1872		
35600	Eldorado and Aurora, s, Nevada*	10 0 0	4 1/2	3 1/2	1 0 0	0 1 0	July 1871		
2352	Eldorado, c, Nova Scotia*	10 0 0	—	—	2 5 0	0 15 0	June 1873		
60000	Emma, s, c, Utah (25,000 fully pd.)	20 0 0	3 1/2	3 1/2	2 12 0	0 1 6	Feb. 1872		
70000	English and Australian, c, St. Africa*	2 10 0	1 1/2	1 1/2	2 7 3	0 2 6	Mar. 1873		
15000	English and Australian, c, St. Africa*	2 10 0	1 1/2	1 1/2	0 3 0	0 3 0	April 1872		
30000	Flanagan, t, Utah*	10 0 0	3	3 1/2	4 2 0	0 5 0	July 1873		
25000	Fortuna, t, Spain*	2 0 0	6	5 1/2	3 19 4	0 5 0	Dec. 1873		
20000	Gold Run, t, Idaho*	1 0 0	—	—	0 2 4	0 4 0	Oct. 1872		
60000	Kapunda Mining Co., Australia*	1 3 0	—	—	0 2 4	0 6 0	June 1873		
20000	Last Chance, s, Utah*	5 0 0	1 1/2	1 1/2	0 14 0	0 2 0	July 1873		
15000	Linares, t, Spain*	3 0 0	4 1/2	3 1/2	14 3 4	0 2 6	Dec. 1873		
7837	Lusitania, t, c, (25 shares)	10 0 0	1 1/2	1 1/2	0 5 0	0 5 0	Mar. 1873		
15000	Mammoth Copper Mine, t, St. Africa*	10 0 0	—	—	0 5 0	0 5 0	Jan. 1873		
5000	Mountain Chief, s, Utah*	10 0 0	—	—	0 4 0	0 4 0	Jan. 1873		
18000	Pontian Mining and Ironworks, c, t, Idaho*	30 0 0	—	—	6 0 0	0 3 0	July 1873		
10000	Praguer, s, t, France*	20 0 0	21	19 21	14 16 11	0 3 0	Dec. 1873		
40000	Port Phillip, c, Clunes*	1 0 0	—	—	1 8 0	0 1 0	Jan. 1872		
10000	Richmond Consols, s, Nevada*	5 0 0	6	5 1/2	1 7 6	0 10 0	Jan. 1872		
120000	Sierra Butte, s, California*	1 0 0	2 1/2	2 1/2	12 2 0	0 2 0	Nov. 1873		
112500	Sierra Butte, s, California*	2 0 0	2 1/2	2 1/2	1 8 0	0 2 0	Nov. 1873		
60000	South Aurora, s, Nevada*	5 0 0	—	—	2 8 0	0 5 0	Dec. 1873		
15000	Sweetland Creek, c, California*	4 0 0	3	4 1/2	0 5 0	0 2 6	Nov. 1872		
20000	Tollins, s, c, (6000 sh. are £5 f. pd.)	3 0 0	—	—	26 10 0	0 5 0	Dec. 1872		
500	Westphalian, s, c, Prussia*	3 10 0	4	3 1/2	0 3 7	0 1 9	Jan. 1874		
15000	Western Andes, s, c, (8000 £5 f. pd.)	3 10 0	4	3 1/2	0 3 7	0 1 9	Jan. 1874		

## NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Last Call.
50000	Anglo Argentine, <i>g, s, t</i> , (15 per cent. Preference).....	1 0 0	...	3s...	3s 3s
20000	Anglo-Australian, <i>g, s</i> , Victoria*.....	2 10 0	...	...	Sept. 1872
20000	Australian United, <i>g, s</i> , Victoria*†.....	2 10 0	...	3s...	3s 3s
3000	Bellavista, <i>s</i> , Peru.....	9 10 0	...	...	July 1873
30000	Blue Tent, <i>Appl.</i> , California.....	5 0 0	...	...	5 5s
50000	Braganza, <i>g, s</i> , Brazil*.....	0 15 0	...	...	Oct. 1870
12000	Camp Floyd, <i>s, s</i> , Utah*.....	10 0 0	...	...	July 1871
35000	Cesena Sulphur Company, Romagna, Italy*.....	10 0 0	...	...	July 1871
50152	Chontales, <i>g, s</i> , Nicaragua*† (and 12,542 of £1 15s.).....	2 0 0	...	2s...	3s 3s
6000	Clifton, <i>s</i> , Colorado*.....	5 0 0	...	...	Feb. 1872
10000	Crescent, <i>g, s</i> , Plumas County, California*.....	10 0 0	...	...	July 1871
100000	Culaba, <i>g, s</i> , Minas Geraes, Brazil*.....	0 17 6	...	...	June 1872
10000	Douglas, <i>s, s</i> , Georgetown, Col.....	5 0 0	...	...	July 1871
7500	East Sheboygan Preference* (40,000 ordinary shares).....	2 0 0	...	...	July 1871
25000	Excelsior Hydraulic Gold Washing Co., California*.....	6 0 0	...	...	July 1871
60000	Exchequer, <i>g, s</i> , California*.....	1 0 0	...	...	July 1871
50000	Frontino and Bolivia, <i>g, s</i> , New Granada*†.....	2 0 0	...	3s...	3s 3s
50000	General Brazilian, <i>g, s</i> .....	1 0 0	...	...	July 1871
10000	Goetz Tunnel Co., Georgetown, Col.....	7 0 0	...	...	July 1871
40000	Holcombe Valley, <i>g, s</i> , California.....	1 0 0	...	3s 1	July 1873
6000	Hornachos, * <i>s, t</i> , (£10 shares).....	7 0 0	...	...	Jan. 1874
10000	Hudson, <i>g, s</i> , California*.....	5 0 0	...	...	April 1873
20000	Imperial Brazilian Collieries, Brazil*.....	5 0 0	...	...	July 1871
20000	I. X. L., <i>g, s</i> , California*.....	5 0 0	...	...	July 1871
50000	Javali, <i>g, s</i> , Nicaragua*.....	5 0 0	...	3s...	3s 3s
11000	Klondike, <i>g, s</i> , Alaska*.....	5 0 0	...	...	July 1871
22000	Laneston, * <i>g, s</i> , Vizcaya, Spain (£2 shares).....	1 7 6	...	...	Aug. 1873
150000	London and California, <i>g, t</i> .....	2 0 0	...	...	July 1871
75000	Malabar, <i>g, s</i> , Colombia* (65000 issued).....	1 0 0	...	3s...	3s 3s
40000	Malaga, <i>l</i> , Spain*.....	10 0 0	...	...	July 1871
20000	Malpaso, <i>g, s</i> , Colombia*.....	1 0 0	...	1s...	3s 1s
12000	Mezenberg, <i>c</i> , Hönnef, Germany*.....	5 5 0	...	...	July 1871
14000	Montague & Waverley Gold Quartz Crushing Co., * N. Sect. 6000	2 0 0	...	...	Allotment
6000	Monte Loretto, <i>g, s</i> , Italy.....	5 0 0	...	...	July 1871
15000	New Pacific, <i>g, s</i> , Nevada*.....	5 0 0	...	...	Jan. 1874
45000	New Granada, <i>g, s</i> , Venezuela*.....	5 0 0	...	4s...	4s 1s
50000	New Rosario, <i>s</i> , Mexico*.....	1 0 0	...	1s...	3s 1s
20000	New Zealand Kapanga, <i>g, s</i> , Coromandel*.....	5 0 0	...	...	July 1871
10000	Newfoundland, * <i>l</i> .....	10 0 0	...	...	July 1871
20000	North American, <i>g, s</i> .....	4 0 0	...	...	July 1871
50000	Panaleillo, <i>c</i> , Chili*†.....	4 0 0	...	2s...	2 2s
80000	Pastorena United, <i>g, s</i> , Italy*†.....	3 0 0	...	3s...	3s 3s
50000	Rica, <i>g, s</i> , Colombia* (40000 issued).....	1 0 0	...	3s...	3s 3s
200000	Rio Tinto, * <i>c</i> , Huelsa, Spain.....	1 0 0	...	6s...	6s 6s
20000	Rosita Grande, <i>g, s</i> , Brazil* (41 shares).....	5 19 0	...	...	Jan. 1874
32500	Russell Consolidated, <i>g, s</i> , Nevada*.....	5 19 0	...	...	July 1872
20000	Russia, <i>g, s</i> , Orenburg and Uta*†.....	10 0 0	...	3s...	3s 3s
25000	San Pedro, <i>c</i> , Chili*.....	2 0 0	...	2s...	2 2s
30000	Santa Barbara, * <i>g, s</i> , Brazil.....	0 7 6	...	3s...	3s 3s
15000	Saturn, <i>s</i> , Utah*.....	5 0 0	...	...	July 1871
10000	Silver Plume, <i>s</i> , Colorado*.....	1 0 0	...	...	July 1871
37500	Snowdrift, <i>s</i> , Colorado*.....	2 0 0	...	...	July 1871
2200	St. John del Rey, Brazil*†.....	100 0 0	...	195	190 200
25000	Star of Nevada, * <i>s</i> , (12000 issued).....	2 0 0	...	...	July 1871
20000	Tecoma, <i>s</i> , Utah*.....	10 0 0	...	...	July 1871
30000	Thornhill Reef, <i>g, s</i> , Australia*.....	2 0 0	...	2s...	2s 2s
43174	United Mexican, <i>s</i> , Mexico*†.....	28 7 8	...	1s...	1s 2s
14000	Utah, <i>g, s</i> , Utah* (£5 sh.).....	4 10 0	...	1s...	1s 1s
75000	Yorke Peninsula, <i>c</i> , South Australia.....	1 0 0	...	...	3s 3s
5000	Yudanamutina, <i>c</i> , South Australia *†.....	3 0 0	...	...	July 1871